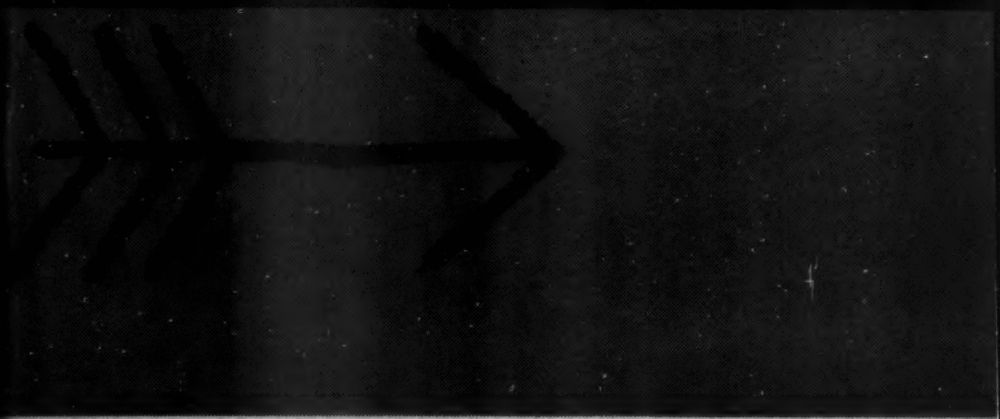
TRENDS IN EDUCATION



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Primary School English
Curriculum Organisation
German Education
Guided Parental Choice
Computers in Education
Colleges and Teachers
In-Service Training

APRIL 1970

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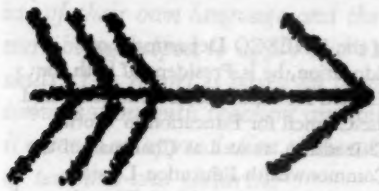

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The opinions expressed in Trends in Education *are the writers' own. They may not necessarily be in accordance with the views of the Department of Education and Science*

Below we reproduce the main content of a report issued after a survey by HM Inspectors of pupils' work in English during their final year in a group of primary schools. The object of the survey was to study children's use of their own language and the ways in which they were being helped to apply and extend their linguistic skills. The report is based on observation of work and conversation with teachers and pupils in 20 schools and it records an appreciation of the whole-hearted co-operation of teachers and children.

Primary School English

Children's linguistic development is influenced by home as well as by school. For the most part in the area in which the group of schools is situated children have backgrounds which provide rich experience of language in conversation and books; but not all are so fortunate and there are schools with a high proportion of pupils from restricted environments. Parts of the area are decidedly prosperous, but material prosperity is no guarantee for a child of an appropriate home background in this respect.

For ease of presentation this statement has been arranged under three headings—talking, reading and writing—although it is recognised that all aspects of verbal communication are inter-related.

Talking

With rare exceptions the relaxed atmosphere in classrooms allowed excellent opportunities for informal conversation about work and mutual interests. Most children were able to talk fluently, sensibly and with complete self-assurance to their visitors; the social aspect of talking appeared well provided for.

Opportunities for the use of speech on more formal occasions were less in evidence. Some schools from time to time held class debates and discussions—often on subjects suggested by pupils—'school uniform' 'co-education' Discussions sometimes took place to help a group to launch new work. A number of schools encouraged children's participation in morning assembly but this only allowed an individual child the opportunity to speak once or twice a term. Informal drama, sometimes linked with movement, was used from time to time at assemblies and elsewhere. Poetry and drama festivals offered further opportunities but generally to the more gifted speakers. Usually response to a query about drama called attention to the yearly nativity play. Some teachers said that their classes performed French plays which they learnt to improve their spoken French.

Tape recorders and record players were being effectively used in some schools. In one, children listened to recordings of poetry spoken by

leading actors—an approach which was reflected in the high quality of the written work produced. Tape recording their own work, listening to themselves speak, criticising their own and others' work were further instances of worthwhile oral activity. One school used its public address system to broadcast fortnightly a twenty-minute programme devised and presented by pupils. Tape recorders appeared rarely to be used in connection with information work. A supply of smaller transportable machines for pupils' use would be helpful for this purpose.

Whilst there were adequate opportunities for conversation there was need for more practice in formal speaking. The spoken word is that which most children will use. If this is to reach a high standard and to include persuasive argument, presentation of facts or expression of worthwhile thoughts in public, it is essential that teachers should help. Some of the effort at present given to reading or writing could well be diverted to speech, a most important aspect of communication.

Reading

Only a few children were unable to read and this is a tremendous achievement of which teachers can justly be proud. There were of course variations in standards but almost without exception children could perform the difficult feat of turning letters into sounds. The majority were able to turn written sentences into thought and many could transform books into experience.

Teachers devote much skilled effort to helping children achieve literacy, but there is perhaps need to look beyond this to the purpose of the exercise. Mechanical skill is essential but its application is of no less import. Much of the material being read—especially the fiction—was mediocre in quality. It is not suggested that teachers should impose the classics on those who are not ready for them or ban the reading of popular but undemanding books. If the achievement noted above is to yield a full return there must be concern to raise standards of literary taste. In this connection it was noted that some reading schemes in use were dated in content, undemanding in vocabulary and language structure and poorly presented in type and illustration.

Two factors appeared to contribute mainly to the improvement of children's standards of reading. These were book and library provision and the positive standards set by the teacher.

A marked dissimilarity between schools was in book provision—in quantity and more especially in quality. The most fortunate were those who receive loan collections from library authorities; they were able to provide their children with a better selection of fiction, geared to their ability and interests and subject to termly renewal.

Some schools attempted to provide separate library accommodation, and huts, entrance spaces, corridors and spare classrooms were seen in use. The essential consideration is that books should be easily accessible and attractively arranged. Whilst expensive books may need to be kept centrally there are advantages in spreading others around the school, provided that they are available to all children.

Relations between schools and public libraries were good; there were excellent and accessible children's libraries which the schools en-

couraged their pupils to use; and librarians were available to advise teachers about books. It would undoubtedly improve school resources and help to do away with the well worn books sometimes found in schools if public library collections could be more widely available to supplement schools' own stocks.

Positive standards set by teachers were undoubtedly the most important influence in extending and improving choice of reading matter. Children were seen to be stimulated to higher standards when teachers read to them from a good quality material—especially when the teacher had a vivid dramatic style and was able to transmit his own enthusiasm. Many teachers have found that short passages stimulated children to go on and read the book. If this is to be successful three or four copies of the book must be readily available. The most successful practitioners observed were very careful to select material to stimulate the imagination and broaden the horizons of children's reading.

Reading aloud by children is a traditional practice that has gradually fallen into disfavour. In so far as this has meant the discontinuance of class or group reading it is obviously desirable. Passages read for a purpose—to communicate excitement, description or the feel of a book —can provide more purposeful practice of the same skills. It was interesting to note pupils reading out their own work, sometimes to spark a critical discussion, and the use of tape recording already mentioned. School assemblies provided excellent opportunities for reading and for choral speaking, sometimes of prayers and passages written by children, and the few examples seen were praiseworthy. In some schools children took no part in the spoken side of the communal gathering and it was rare to find a school where the children contributed more than once a week.

Most children said they were reading a story book at home but comparatively few were reading books in connection with their hobbies or interests. Half the girls and a fifth of the boys named one popular writer as their favourite author, and no other name was mentioned by more than four children. The reading of a wide range of comics was reported, some children buying three comics regularly each week. Amongst the girls there was a spread of choice from the school girl comics to those catering for adolescent interest, reflecting their own spread of maturity. The boys' taste, when it did mature, appeared to progress from schoolboy mischief to adult violence. Few children read magazines. The sports section of the newspapers was the most popular although many girls expressed an interest in news items. More girls than boys claimed to be regular borrowers from local libraries; approximately half the boys and less than a quarter of the girls said they never visited a public library.

Informative Writing

Informative writing was the most common form of writing seen and the one which provoked most discussion with teachers. Children were devoting a great deal of effort and energy to the production of books and displays on a variety of topics. Whilst work was seen that was worthwhile and exciting, the purposes behind all the activity were not always clearly thought out.

Most of the topic work seen provided little in the way of intellectual stimulation. Much consisted of descriptive writing with information

culled from books. Rarely was the subject posed as a problem. Children wrote about animals or birds but were not invited to investigate, for example, why some animals hibernate or how birds get their food. Moreover the topics were all too rarely related to the children's own experience. A girl copying large sections from books for a topic on cats was able to talk knowledgeably about her own pet kitten—but none of this appeared in the book. In one school, where children were compiling books about the town, the writing about visits undertaken in connection with the project had the ring of reality and freshness while the rest was stale and secondhand. There were some notable exceptions. In one school children were writing autobiographies for forwarding to exchange schools. Here were books full of information never before gathered together, each one unique. In another school a girl whose free choice of 'ribbons' had dried up in two pages had extended her work through 'torn to ribbons' to the 'ribbon worm'. Here was another unique book. But all too often the information books were but pale imitations of the original sources.

Ten and eleven year old children were being required to digest information from a number of written sources and to reproduce it in a way which left no doubt about their understanding. This was a sophisticated academic exercise requiring a high degree of verbal ability and experience. A few were clearly seen to have this ability but the majority had not.

This raises the question of copying from sources—a practice which was banned or discouraged by many teachers. Some permitted the less able to copy whilst one teacher argued a strong case for copying factual information. Many children were seen copying passages which they did not understand or which were couched in artificial language such as they would never use. 'The domestic cat, as we know it today, stepped on to the stage of history at a relatively advanced date.' 'They had,' one read further, 'become domesticated, sometimes to their advantage but often to their detriment.' On the other hand, 'An elephant is a large mammal.' was rendered by one ten year old, following instructions to 'put it in your own words,' as 'A big animal which feeds its babies is called an elephant.' This type of transposition which resulted in a false statement was by no means uncommon. A similar difficulty was seen over the use of illustrations which were sometimes traced or painstakingly copied from books. In only a few instances were they used as an extension of the verbal account as they were, for example, in a book about the language of bees or in one explaining the working of a thermostat.

The current fashion for topics makes it difficult to plan for progression. There appears to be a danger that the school year will consist of a series of unrelated topics with little opportunity for development of information, intellectual powers or linguistic skills. A neutral role for the teacher may possibly be a distortion of the current philosophy about child-centred education. The teacher's part in provoking thought, in helping with selection and presentation of material, in leading the child to aim at more effective and precise expression of ideas, was not in evidence in many schools.

Considerable value was found in much that was written as a result of radio and television lessons, for here children had to extract, remember and record in their own words. Similar value was obtained in the

process where information tapes were made by children who had acquired the information from reading. Where the purpose of the writing had been thought out much higher quality resulted.

Personal Writing

There were great differences between schools and even between classes in the same school in the approaches to creative or personal writing. It is usually, of course, the teacher's own interpretation of what this particular kind of writing implies that determines the nature of the work produced by children.

Some schools set a weekly composition on a semi-literary theme; others used art, music, the senses and the emotions as stimuli. The quality of the work produced was also varied. Much was pedestrian but there was also a great deal of imaginative lively writing. In most instances grammatical conventions were sufficiently observed to allow for clarity of expression.

Some teachers were inclined to encourage written work which involved a special or limited use of the imagination. For some this was story writing when boys took as their theme space travel or war whilst girls favoured schools and riding. This would seem to be satisfactory as long as it is not the only kind of imaginative writing produced. The longer stories were inevitably often derivative, bearing the hallmark of some favourite author, comic or television programme.

A number of teachers clearly believed in relating personal writing to experience. This was seen not only in the traditional use of subjects like 'Spring', 'A day in the holidays', 'Fireworks', 'My family', but also in writing about class and school visits and in the description of sensations. Other teachers took pains to get their children to write of the emotions. Some most interesting writing was seen when the teacher had suggested a subject like 'Enjoyment' or 'Sadness' or 'Alone'. There appeared to be little doubt that what might have appeared abstract did result in a grappling with experience which furthered the development of the children involved. One group of children writing on 'Sadness' produced these highly personal contributions:

'Sadness is when my pet dies.'

'Sadness is when you have a brother who cannot walk.'

'Sadness is when my teacher is in a bad mood.'

A number of schools were encouraging children to write in verse as well as prose. It was not unusual to find anthologies of poems written by the children. Some concentrated on rhyme and rhythm but the following poem by a ten year old boy illustrates a not uncommon tendency to branch away from formal shape.

THE DREAMER OF GLOUCESTER

To join him in his thoughts
Is not so hard
Just slumber, let your mind go,
Think what he thinks,
Listen what he hears
For to listen gives more excitement
Than to see.

'Listen'. Let yourself go! Quietly now.
He puts dreams and thoughts with a sparkle
Into everybodies minds.
So don't fret with nightmares,
Only bad villains have those.
Look into the smoke of his slumber pipe
and listen to what he has to offer
'TO EVERYONE'.

Some sensitive verse writing was produced—perhaps as the result of a teacher's encouragement and influence—by children described as having poor verbal ability; they showed that they were able to make an honest attempt to match a vivid experience with appropriate words. An eleven year old asked to write about being afraid produced the following:

AFRAID

Murder Death
It frightened me a lot
Kidnapped, drowning.
What will happen next.
Dark alleys, footsteps
Go round
And round in
My mind
Car crash Could it be
My dad
no
but is it?

Presentation and Grammar

Standards of presentation, which ranged between the extremes, must often have been unsatisfactory to the children themselves. In their anxiety to avoid imposing standards on children or appearing too critical teachers were perhaps not providing sufficient guidance and, in consequence, the children's work was often presented in a slipshod and careless fashion. Consideration might be given to methods which ensure effective presentation and to the relative advantages of exercise books and loose leaf folders. Where teachers insisted on neatness for display work the results were usually very good and often outstanding. The pressure of writing was such that, on occasions, standards of handwriting were allowed to lapse and the difference between note-taking and presentation was not clearly indicated. It appeared that sometimes too much was being expected of children who were often engaged in all the processes of academic research at one and the same time. There is much to be said for doing less and making sure it is done better.

There was a range of practice in the use of grammatical exercises and correction. A few teachers corrected every error and at the other extreme some did not mark at all, as they did not wish to interfere with a child's own work. The majority took the middle line of drawing the child's attention to one or two mistakes so that he might avoid repeating them in his next attempt at writing.

There was no evidence of any relationship between the amount of grammatical exercises done by pupils and the quality of the writing.

In fact in schools where the emphasis was on correctness and accuracy much writing seen was stereotyped and pedestrian. There was little indication that weekly exercises produced any substantial improvement in spelling or punctuation or that pupils were able to apply the rules learnt to their free writing. Grammar related to work done, especially when the children were anxious to communicate, seemed to produce results at least as satisfactory as more formal exercises.

Purposes Behind Writing

'I get these thoughts, sir and I just have to get them down on paper.' Many teachers realised that the compulsion behind this ten year old boy was not universally available. It was apparent that thought was not always clearly directed to the reason for writing. The young writers were most appreciative of the interest which their visitors showed and this highlights the need to provide opportunities for their work to be read more widely. It was to teachers' credit that they had inspired many pupils with enthusiasm so that they enjoyed writing. If they could extend this so that children write to be read, and perhaps read critically, by others they would help to fix and retain this enthusiasm. Amongst the minority who displayed little interest in writing there was even greater need to underline its purpose and to indicate that it was not just an intellectual exercise devised for use in schools.

There was a surprising similarity of approach in classrooms where a high standard of English work was seen. Classes were organised in informal groups, there was a buzz of conversation and children moved about collecting and using books. Good class and school libraries were in evidence and tape recorders were being used by teachers and pupils. Purposeful work went on despite the distraction of visitors. Wall displays were prominent, neatly written and excellently arranged: there was effective use of art and craft. The children were happy to talk and to explain their activities. In each of these rooms there was some writing of the highest standard both personal and informational from sufficient children to show that this excellence was more than fortuitous.

The secondary school curriculum is under attack from all sides. Is it possible to organise the school week to better effect?

Towards a Balanced Curriculum

J. W. MORRIS

In the present climate of educational experiment and research many of our assumptions about the content, methods and objectives of education which are implicit in the curriculum and organisation of schools are likely to be questioned. We need to investigate whether the character of children's thought changes substantially during the period 11 to 18 and how the curriculum should reflect this; whether some areas of the curriculum ought to be treated generously early in the programme and others should be postponed to later stages; whether short concentrated or discontinuous courses in some fields are more profitable than long-drawn-out courses with meagre weekly rations of time; whether traditional subjects which are considered by some educationists to be too narrow in their scope can be revitalised by a more liberal treatment; whether new subjects or combinations of subjects can effectively replace old. Authoritative answers to these and other questions may revolutionise the ways in which we organise education in schools. Piecemeal research into single subjects or allied groups may temporarily distort the broader view, either by concentrating the attention of teachers on some elements to the neglect of others or by making demands upon time and resources without considering the effect on the whole curriculum.

Some would argue that early decisions about pupils are forced upon teachers by competitive examinations which call for an attempt to predict the future talents of the young adult on the basis of performance by the adolescent. Long-term prediction as to general ability may operate to set some pupils on academic courses which, in the long run, prove to be unsuitable, or to under-rate the future potential of those who have come to be called late-developers. Specific long-term prediction may fail in both a positive and a negative sense. In the positive sense it may label as a potential scientist or modern linguist a boy or girl who later turns out to be quite unremarkable in the chosen field. In the negative sense it may exclude from consideration boys and girls who later reveal special gifts. Teachers are often justified in their predictions, but there is a sufficient margin of error to support a case for keeping an open mind about pupils and for operating an open system which delays as long as possible irreversible commitment to narrowly defined courses. Yet at any given stage pupils need opportunities to work at the best level of which they are capable. An ideal situation may be difficult to achieve; but it may be possible to arrange a curriculum which approaches more nearly to providing a more balanced framework than most schools have yet achieved.

Basic Period

One of the greatest problems in curriculum management is finding time for all the subjects that have a claim for inclusion. At the lower end of the secondary school it is a question of seeing that every aspect of the range is sufficiently represented and to determine where each pupil's strengths and weaknesses lie. This could be called the 'basic' period and it runs for three (or sometimes two) years in most schools. A typical distribution in the basic period would be:

> R.E. (2), English (5), History (2), Geography (2), French (5), Mathematics (5), Science (4), Art/Craft (2), Handicraft/Home Economics (2), P.Ed. (3), and Music (2).

In a 35 period week this leaves one unconsumed period. Latin can be introduced by reducing the time allocated to R.E., English, French or the practical/aesthetic subjects. This tends to put pressure on pupils and teachers in all the subjects affected. In the middle school* it is a question of adding the beginnings of specialisation to an acceptable general education for some pupils, and giving a broadly balanced education to others without committal to specialisation at this stage.

Can we think of a 'basic period' curriculum which is substantially different from that outlined above? If not is there a case for postponing *any* major changes (e.g. extra languages, extra science, and the dropping of other subjects) until the beginning of the fourth year? If this is established there would be little purpose in looking for a 'point of break' at 15 for pupils who were judged to be ready at 14 for the beginnings of specialising, since their new curriculum would have been operating for only one year. This would argue for a basic four year curriculum. But would it be possible to construct a 'basic curriculum' in such a way that *minor* variations could be introduced after, say, two years affecting only limited areas of the curriculum? If so, could an assessment be made at the end of four years (preferably internally) on achievement in the basic curriculum before specialisation begins? Would such an assessment be necessary or useful?

Curriculum Organisation

If we think of secondary education as being mainly or wholly conducted in comprehensive schools a further difficulty arises. Apart from 'slow learners' all pupils might expect to pursue the same general sort of basic curriculum for a period of say four years before decisions are made about examination goals and specialisation. Three kinds of organisation are at present employed, fine streaming, coarse-streaming or broad-banding, and mixed ability grouping. Superimposed on these kinds of organisation are different kinds of adjustment procedures devised to match work to pupils' abilities; these are setting or group- and individual-work.

Fine streaming usually involves making decisions about pupils on uncertain evidence and can be particularly unfair to those whose performance, relative to their fellows, changes greatly after two, three or four years. Mixed ability grouping has, it is claimed, important social and personal advantages, but unless it is combined with a great deal of individual- or group-work it is unlikely to afford work which is

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* For convenience the term 'Lower school' is used in this article as shorthand for years 1, 2 and 3; and 'Middle school' refers to years 4 and 5.

suitable for all pupils with the wide range of capacity that may exist in a single teaching group. Broad-banding is a compromise between the two extremes, but while it follows a middle road it would still need to use setting or some form of group-work. Whichever forms of organisations are pursued they should be sufficiently flexible to cater for a wide range of performance among pupils, as well as changes in the relative performance of any individual pupil over a period of time. There are problems associated with specific subjects which groups of subject specialists would need to consider, e.g.,

(*a*) Can some study of Greek and Roman civilisation be ensured for all pupils even though they do no serious language study of Latin or Greek? How could this be achieved and how much time would it need? Is the teaching of the Latin or Greek language to pupils who will not continue it for 3 to 5 years justified? Will modern approaches make the languages more accessible to a wider range of ability and make possible a higher level of achievement in the shorter time now generally available?

(*b*) Does modern language teaching at the basic stage consume too much time? Would different aims or different techniques allow good progress on a narrower front and with less time? It is important that every effort should be made to provide suitable courses for all pupils, including those of modest linguistic ability.

(*c*) Can schools afford the time allowances for science that some combinations of Nuffield science programmes appear to demand?

(*d*) In music what are the best ways of arranging for instrumental instruction? Should special provision be made for drama?

(*e*) How could suitable arrangements be made for short continuous pieces of work in a subject, such as might be required for fieldwork in geography, geology and biology, or concentrated courses in dressmaking or pottery?

A forward-looking curriculum theory, aiming at reducing or eliminating practices which are widely thought to be unsound, should surely grow out of successful current practice rather than take on the aspect of a revolution. It should not discard wholesale what has been learned thus far by pragmatism; for example it is generally agreed that, at some stage, a degree of choice should be available to pupils to accord with differences in capacity.

O-level Examination

Arrangements for the first examination are, at present, under review but under prevailing conditions preparation for O-level, in most schools, to a greater extent than CSE, cuts out some important subjects for many pupils. There is no compelling reason why it should do so. Time could be allocated to non-examination work designed to preserve a balance, and some heads do this; many others would prefer to aim at the maximum possible number of O-level passes. Parental pressure and competition for places in university and college, or for acceptance into articles by professional bodies, have warped the potential value of O-level. But it must be remembered that for many pupils O-level is a confidence-builder; and for many teachers it sets a well-defined target.

But it is not the scramble for a large number of passes or for a

strongly biased specialist group of passes that must carry all the blame for the warping effect of O-level; it is sometimes the nature of the examination itself that stifles the quality of education within the subjects examined. Preparation for external examinations must be carried out by teachers whose ages range from the early 20s to the 60s, and whose opportunities and volition for 'professional self-renewal' vary greatly. Their conceptions of the subjects they profess and of their educational aims must vary too; and external examinations must try to do justice to this wide range of teacher opinion. Too often they err on the side of conservatism, because many teachers do not undertake adequate in-service training.

For nearly all subjects the examination is based largely on performance in writing over a short period of time, with concessions for practical work or oral performance in some subjects. Arts, crafts and music are particularly difficult to examine satisfactorily because the means at present employed are not flexible enough to deal with a broadly based teaching syllabus; other subjects suffer in varying degrees from this weakness. Finally many teachers feel constrained, by the nature of the examinations, to begin preparation for them at the beginning of the fourth year. For many pupils this point of break is too early.

Terminal Year

When the school leaving age is raised (and, indeed, this applies now in many areas where voluntary extension of school life is widespread) the age of 16 will be an inevitable point of break for many pupils. For many it will be a 'terminal year' but for an increasing minority it will not. There is much to be said for making the year 15 to 16 a transitional period in which pupils, after consultation has taken place with parents, prepare for leaving school, or for continuing with one of the several kinds of course which the school has to offer. What is advocated is that this year should be forward looking; too often it is backward looking—concerned with revision or consolidation at the end of formal education.

In this kind of organisation there would be a basic school curriculum which would be pursued by all pupils up to 15 years of age. If cognate subjects (e.g. the practical and aesthetic subjects; the sciences; history and geography; language studies) were given blocks of time, and if some setting or group-work developed in certain subjects, it would be possible to offer additional work within the blocks for some pupils as they grow older without dropping any of the basic groupings. In this way a broad-based foundation would be laid and some extra work inserted for recognisably able pupils (in whatever sphere special ability became manifest) without the early abandonment of important areas of educational experience. In such an organisation 15 would be a good age for internal assessment and decision-making in consultation with parents.For some pupils the year 15 to 16 would be a rounding-off period but it would also involve industrial/commercial experience linked with work at school and, possibly, at a college of further education; many would require a school-leaving certificate based on examinations. For some the period 15 to 18 would be a complete phase leading to whatever forms of advanced level examinations may develop and, if necessary, taking in the examination assessments at 16 years of age on the way. Some pupils may think of 15 to 17 as a

proper terminal phase—particularly those who are slower in their rate of maturation and at the same time want some examination success and/or some introductory work on careers.

Grouping of Subjects

The idea of 'blocks of subjects' or 'areas of experience' will be elaborated a little later on. Some schools may devise new subjects or subject-groupings, but on present showing most will, for some years at least, continue to teach traditional subjects. Each should make, at all stages, some contribution towards the broad educational aims which teachers profess. They include such objectives as—the personal development of boys and girls, provision of useful knowledge for living, and preparation for a world which increasingly calls for international understanding and must inevitably move towards international harmony. These motives should be in the forefront of teachers' minds throughout the course.

But there is little doubt that the traditional subjects as they are commonly taught leave pupils with unfortunate gaps in their knowledge and understanding of the world into which they are soon to be launched. All pupils ought to be given opportunities:

(*a*) to appreciate the significance of economic process, psychology and sociology in modern Britain with its highly urbanised, industrial and commercial structure.

(*b*) to see how science and mathematics are applied to useful ends, and can assist the process of orderly thinking.

(*c*) to bring at least one practical/aesthetic achievement and at least one set of physical skills up to a pitch of comparative excellence.

(*d*) to be given some experience of bringing together the skills and knowledge gained through various disciplines in the study of topics or the solution of problems, so that the structures of learning may be seen to interlock. For the 16-year old leaver this may take place in the fifth year; for pupils staying on beyond 16 it may be an essential element in general studies.

Time Factor

The time available is a crucial element in the balance of the curriculum. In general a school which runs on 35 periods in a weekly cycle shows some serious gaps in subject coverage, and it is subjects like art, music and handicrafts which are the first to suffer among pupils of more than average ability.

A. G. Gooch has discussed this in an article in *Trends* No. 6 (April 1967) 'Finding the Time'. The ideas of the basic curriculum which he sees as operating for three years could well operate for four years. And his blocks of cognate subjects may not be the best for flexibility in managing the needs of pupils. Nor need the time allowance (or number of lessons) appropriate to the lower school, necessarily apply to, say, the fourth and fifth years.

It is important that some positive gesture should be made to fourth year pupils (i.e. at about 14 years of age) to associate them with the older members of the school. Too often they lie in a no-man's land, too old to feel much affinity with the lower school and excluded from the status and privileges accorded to sixth and fifth formers. An

increase in the length of the school day, where problems of transport do not prohibit it, would not only be a psychological boost to them but would also afford more time for curriculum flexibility. In addition some heads might feel that an extra one or two periods in the second or third year would increase their margin of manoeuvre, and lead more gradually up to the longer working week in the fourth year. Some schools are already achieving success with timetables which do not neatly fit into a 9 a.m. to 4 p.m. day.

Block Approach

The following blocks and allocations might operate in the lower and middle schools respectively. These blocks are arbitrary and tentative; the principle is more important than the detail. The blocks are designed to preserve a balance among 'areas of experience' and are based on an assumption that for the first three years pupils have a 35-period week, but thereafter the week is lengthened by five periods. The total amount of time available is not crucial to the general principle of balance achieved in this way.

	Lower School 35 *periods*	*4th and 5th year* 40 *periods*	
Language and literature	8	8	The extra
Maths/Science	9	9	8 periods may
Modern Studies	6	6	be added to
Aesthetic/Practical and P.Ed.	9	9	any one or more blocks to
Uncommitted	3	8	suit pupils' needs.

Some notes on this allocation designed to ensure a minimum time for each 'area' may be useful.

Lower School,

(*a*) Language and literature covers English. If French is added the uncommitted 3 periods would be needed. Clever boys and girls might add Latin or a second modern language within the basic 11 periods thus achieved, particularly if they had already made good progress in French in a primary school.

(*b*) The mathematics and science block could include 'environmental studies'.

(*c*) Modern studies may be simply history, geography and R.E., or social studies, or a humanities project. It might include some study of economics or sociology.

(*d*) Aesthetic/practical covers art, music, handicraft/home economics and is linked with physical education.

Middle School,

The extra 8 periods permit a measure of specialisation in any one or two 'areas' without encroaching on the basic allocation. Thus 16 periods could be given to English and modern or classical languages 17 to mathematics/science, or 14 to aesthetic/practical, without making inroads on the time allocated to other blocks.

General

(*a*) Though a master timetable would have to be made to ensure that

workable time allocations are given to each subject, once this has been done the units of single-, double- and multi-periods would go to the block. The heads of the departments in a block would then be free, provided they and the head agreed, to use the time in the way that seemed most profitable. In the cases of modern studies and practical/aesthetic courses, for example, intensive courses with generous time allocation, extending for periods of a half-term, a term or a half-year might take the place of continuous courses on short weekly allocations.

(*b*) In general, it would, where possible, make for the best use of time and permit setting if the whole of a year group went to each block simultaneously.

(*c*) Integrated courses or courses with a strong practical bias would not be precluded. If the heads of departments decided to link science and part of the modern studies into a programme on health education, rural studies, or environmental studies, they could do so. Similarly a humanities project could be arranged to use up time from the language and literature, and the modern studies blocks.

(*d*) There could be courses in technical subjects in the 4th and 5th years involving maths/science and handicraft, or in commerce which would replace the traditional subjects in the modern studies block, with generous time allocations.

(*e*) Those teachers whose training has been in combined studies rather than a single subject would have a useful contribution to make in a block department.

The objectives of the blocks are two-fold. First they ensure that no important area of the curriculum can be abandoned to support early specialisation. Secondly the associations of subjects (or block groupings) are devices for gaining freedom within a block. This freedom may be exercised to redistribute time according to pupils' needs, to conduct experiments in team teaching or integrated studies, and to vary the courses of work to suit the wide range of ability across the teaching groups. Flexibility within each subject could be achieved by setting or by various levels of group-work based on common cores of study, especially if teaching groups have a relatively wide spread of ability. The allocation of parcels of time to each block would simplify central organisation; it may be that a price would have to be paid in the shape of some inflexibility across block boundaries in staffing, though some teachers with suitable gifts might be allocated part-time to one block and part-time to another.

The example of a block system quoted above is arbitrary, being based on certain assumptions about the way in which traditional subjects may be linked into areas of experience. It could, for example, be argued that RE, history and literature form a good partnership, or that geography is more likely to sit comfortably with science and mathematics. In this case the merits of another block system might be considered such as this:

	Lower School
Language and humanities (RE, English, history, languages)	14 periods

Practical and scientific (Maths., science, geography, handicraft/home economics)	13 periods
Aesthetic and movement (Art, music, and PEd, including dance)	8 periods

In the middle school the extra five periods can be added to any single block or distributed among them. One disadvantage is that there is no margin of manoeuvre in the lower school, and it would be possible for RE, history and geography to be squeezed out by additional foreign languages or additional science. The groupings, nevertheless, might be considered more favourable to interesting team-work and integrated studies within the block groups.

Whatever form of block-grouping is attempted it involves some element of self-denial on the part of those subject departments which have, for some years, been accustomed to claiming a large share of the available time. It is important, too, that each block should contain enough time for internal flexibility.

For each school a detailed examination of the implications of the block system needs to be carried out to see if it contains in-built prohibitive elements.

On simple arithmetical calculations it would appear to have general viability. It would clearly be advantageous, for purposes of setting where appropriate, to allocate the whole of an age group simultaneously to a block for all of its periods. Thus if some pupils were deemed capable of doing English and French only in the first block, while others were learning English, French and Latin or another modern language in the same time, the department could organise its sets across the age group without interfering with other departmental arrangements. An examination of each of these separate blocks shows that there would be enough teachers and rooms in any single grouping to take on an age group simultaneously. Some schools with a 'broad-banded' type of organisation might find it more convenient to arrange a block system which works with 'bands' rather than the whole of an age group.

There is a need for widespread experiments in new timetable structure, not only in blocks within a weekly cycle, but also to allow continuous pieces of work, extending over a few days or a week, on occasion. Oundle offers its boys a week in the workshops. Field study in depth is only achieved in some schools by doing it in the holidays. Short concentrated courses in needlework (dressmaking in particular) and home-economics can be valuable for older girls. Experiments should be carried out in which the normal timetable could be replaced for parts of a school for one or two weeks in the year by an open arrangement which would allow continuous pieces of work for several days, half-days or even a whole week in one field.

This article has suggested some of the ways in which traditional subjects may be linked in 'areas of experience' but it has not elaborated the possibilities of adapting them to suit the varying needs of pupils of widely differing attainment, nor has it claimed validity for any suggested 'area of experience'; this is a matter on which each school should make its own decisions.

In West German schools the curriculum is said to be prescribed by the federal Ministries. What happens in practice?

West German Curriculum Construction

JAMES LYNCH

Curricula in German schools, in common with curricula in most European countries, are not formulated by any backwash effect from examinations and examining boards as has been the tradition in England. Instead they are 'prescribed' officially by the eleven Ministries of Education of the Federal Republic. What, to English teachers at least, appears at first sight to be rather distasteful and dangerous control, can emerge on closer scrutiny as a viable and efficient method of determining curricula, which has much to commend it. Not least that it can offer, if liberally administered, a genuine opportunity for real democratic participation in decisions about the content of education. For this reason if for no other, it would seem important to be aware of the way in which curricula are designed and published in West Germany.

Germany as a whole has a long and not always liberal or enlightened history of prescription of curricula by the central ministries. Under the Hitler regime the system was tailor-made for a dictatorship to abuse and pervert the content of education for its own ends. In 1945 therefore it was the almost reflex reaction of German administrators with the active encouragement of the Allies to look back to the healthy roots of German education under the Weimar Republic for the new guidelines. In these early days, participation of teachers and other parties in drawing up curricula was minimal, and the guidelines were issued for strict observance. The reason for this were many: the physical and mental distress and poverty, the need to provide new teachers, trained in short emergency courses with a firm and secure framework within which to work, and perhaps uppermost in the minds of the Allies and some Germans, in order to satisfy the demands of denazification and democratisation of the German system.

Early plans and guidelines therefore tended to be the work of administrators and specialists in the Ministries, and it was not until the early 1950s especially in the former American Zone of Occupation that the discussion and forming of the plans reached a wider group of teachers and others. Increasingly, however, as German education began to regain its former confidence, more and more interested parties were involved in the discussion and formulation of the guidelines, from the universities, colleges, unions, administration and the churches and especially in Hessen by the parents themselves. Indeed in Hessen all major educational decisions have to be approved by the *Landeselternbeirat* or Regional Parents Council which consists of parents elected from the community and parent/teacher associations. Many English teachers may feel that this manifestation of so-called parent-power is carrying things a little bit too far, and yet the way in which

Hessen is attempting to achieve a major educational reform on the basis of consultation, participation and publication would seem to be most commendable.

Participation of parents in curriculum discussion and publication is admittedly much less in other States of West Germany than in Hessen, and yet everywhere one detects an increasing eagerness to use the published material as a basis for discussion and consideration and not as a straightjacket. To this end most ministries now introduce their guidelines for a trial period and many mention specifically that they are to be considered only as a framework within which the freedom of the teacher and educator may unfold. Within this, the responsibility for what is actually taught in the classroom is increasingly delegated to the teacher, often as in the Saarland with official encouragement to use the material critically and as a basis for experiments. There is however a certain ambivalence between the desire of some administrators to provide, in compact and readily available form, a mine of useful information and a fear on the part of others that this may lead to the type of slavish copying and inflexibility which all seem at pains to avoid, and that what really may be called for is a minimal plan which teachers can re-frame and re-mould themselves in the light of their own experience.

At the present moment the former approach still predominates, yet usually accompanied by appropriate exhortations to teachers to regard the plans as maximal ones and to be selective. This is in marked contrast to the tone and spirit of plans issued 'as a compulsory basis', on the introduction of new guidelines for the ten-year school in East Germany, which lay down in great detail and in no uncertain terms how the teacher is to fulfil the goals of socialist education.

It is difficult to generalise about the plans for the various types of schools and the different stages and subjects by all the Ministries. Even the name by which they are known varies from place to place and from school type to school type. Some are referred to as *Richtlinien* others as *Bildunsplan* or *Lehrplan* or yet again as *Studienpläne*. Some as in North Rhine Westphalia and Berlin are printed and published by a well-known publishing company, whilst others for example in Hessen and Bavaria are published by the Ministry itself. As if emphasizing the temporary nature of the material, some, as in Schleswig Holstein and some material in the Saarland and Bremen, is typed, duplicated and distributed by the authorities.

Usually all plans consist of a general and a specialist part. The general part varies very greatly, but usually deals with the goals of the school and attempts to relate these to the school law or constitution. In Berlin for example the tasks of the school are enunciated on the basis of Section 1 of the Berlin School Law and include the education of young people to an awareness of their rights and duties in human society. Details of school organisation, timetables and often psychological hints on children and education are also often included. The specialist part of the plans is usually divided up into subjects and attempts to describe the aims of the particular subject and reasons for its inclusion and to give to a greater or lesser extent the material to be taught and its relationship to previous work. In history, for example, in almost all states tasks and aims are given at some length. In Berlin it is to aim 'to contribute to making the young person into

a self-sufficient and responsible person who takes part in social and political life'. In Bremen it is to 'awaken the historical mode of thought by opening up a view into the past', whilst in Baden-Württemberg it is 'to help the young person to achieve his own picture of the world and human being, as well as helping him to recognise his own place and task in society'. In all plans there is a strong undercurrent of idealism about the social and political responsibility of the individual and the nation and nowhere does this emerge more clearly than in the curricula for history, civics and political studies.

Indeed in view of the current interest in political studies in schools and colleges in this country the aims and content of the schemes of work in this field in West Germany are of more than passing interest. Of course history and political studies are closely related and are therefore often amalgamated, especially with the upper age groups, into one subject such as civics or social studies. In the guidelines for the Bavarian elementary school, for example, social studies is specifically stated 'to serve' political education and is given the task of 'arousing an awareness, that human life and action in a social context necessitate an order and that this order must correspond with the bases of human dignity'. The history syllabus for the secondary modern school in Schleswig Holstein displays a similar emphasis on political history, although not to the exclusion of social economic and cultural developments. The ideal is however similar to that in many other provinces, namely that history will in some way 'contribute to the development of a responsible citizen'. In the Saarland also a specific aim of social studies is to evoke 'a responsible participation in the life of the state'. The material recommended for a four year course up to school leaving at the age of 19 is structured and clear. A theme is allocated to each year, for example the human community is taken as the theme for the first year. This is then sub-divided into a study of a series of subheadings amongst them the family as a social, economic, legal and moral unit and the measures that the state has taken to protect the family. The theme for the second year (age groups roughly 16/17) is the relationship between the State and the citizen, that for the third year the 'political re-structuring of the world after 1945' and the final year is taken up by a consideration of the ideological bases of our world.

In those provinces which have specific and separate plans for political education there is often an explicit expression of the need for and yet difficulty of political education, and this particularly in Germany. In Hessen for instance the section on this subject begins with the warning 'The political education of the German people is an as yet unsolved task'. The plans for the elementary school in North Rhine Westphalia put it more dramatically when they say that it is 'indispensable' and must aim to bring young people to the conviction that 'the well-being of the nation and of the individual is dependent on the ability and readiness to be responsibly and freely active in political life'. The tone of these schemes seems to be notably liberal and no attempt is made to prescribe a rigid list of themes. Rather each school is urged to select that material and content which seems appropriate to it from a long and stimulating list of themes and topics. In this manner each school is encouraged to build up its own course. North Rhine Westphalia is also one of the provinces which have issued specific, although not extensive schemes for political education in the

vocational schools, and here again the themes of the personal responsibility of the individual in the family, in professional life, in the life of the nation and in the world, frequently recur.

Not all provinces have compulsory religious instruction as part of the school curriculum but where it is included under the title of religion as apposed to Bible stories, separate guidelines are issued for Catholic and Evangelical religious instruction. In Baden-Württemberg separate material is laid down for those schools which come under the control of the Evangelical Church in Baden and in Württemburg. Only one set of Catholic guidelines is issued in this province. The churches obviously have the last word on what is taught and it is probably this which would seem to be the reason for the somewhat wordy and vague aims laid down for this subject. The aim of Evangelical religious studies in Baden Württemberg is to 'awaken faith in the children and help them to living membership of the Church'. The basis for this is the Bible. In Catholic religious studies in the same province the children are 'to come to know the living God who has revealed himself in Christ'. The method prescribed with a heavy emphasis on note-learning, seems equally out of touch with more liberal suggestions and exhortations in other subject areas in many other provinces. However even in Hamburg the basic texts for religious education remain the 'small catechism' and the 'Evangelical hymn book' and although the material for the final year of the middle school contains a short, and rather unhelpful, section called 'world religions,' this does not appear in the syllabus for the majority of pupils who remain in the modern school. Admittedly the effects of Vatican II are slowly perculating through, as recent rejections of denominational schools in various parts of West Germany have shown, but where it remains religious education is still clearly a problem area.

More refreshing and less introspective are the plans for geography. The tendency would seem to be to begin with the child's immediate environment either as local studies or as part of a more specifically geographical approach and complete the course in the final year by dove-tailing the work into political education with such themes as the population explosion, trade patterns and routes and comparative studies of countries from demographic, economic and political points of view. In the final year of the middle school (age 16) in Hamburg for instance the plans for the three subjects history, social studies and geography are placed side by side and interlocked so that a historical treatment of a divided world is balanced by a study of supra-national organisations in social studies and economic and political power blocks in geography.

Obviously there is credit and debit in this type and mode of curriculum construction and Germany is not the only country which draws up its curricula in this or a similar way.* Yet even just at the level of a comparison with our own School's Council Curriculum Bulletins there is immense food for thought and perhaps an indication of the need for a heightened awareness of our own plans for curriculum reform in a more intensely comparative perspective.

* A complete list of all the German 'Guidelines' is available from the Permanent Conference of Ministers of Education in Bonn.

1970 has been designated by the United Nations as International Education Year. This article assesses the activities of UNESCO in the field of education and the part played by the United Kingdom.

The Educational Work of UNESCO

LIONEL ELVIN

UNESCO, the United Nations Educational, Scientific and Cultural Organisation, was born in London in the closing stages of the second World War, and this was the beginning of an association of this country with its work that has been intimate and important. The idea arose from meetings of the Ministers of Education of the allied countries. They realised that international co-operation would be necessary to restore education everywhere after the war and that if any sort of international order was to be established the education of the young must not be perverted as it had been, most dramatically, in Hitler's Germany, Mussolini's Italy and Imperial Japan. As its constitution was fashioned a longer view began to be taken and it was realised, here in London, that all the countries of the world would benefit from an international organisation that used international means to advance education everywhere and to prepare the young for living in what must increasingly be a world-wide community.

The headquarters of the new organisation were eventually established not in London, but in Paris. Nevertheless the association of this country with its work has continued to be something more than formal. There are some other countries that make a larger financial contribution to its work, for this is fixed in terms of population and economic resources, and the United States and the Soviet Union naturally pay a larger share than we do. And the role we play is necessarily smaller, now that there are 125 member countries, than at the beginning when there were only 20. In those days one had the feeling that any proposal backed by the United States, the United Kingdom and France was likely to go through. Now, however, the Soviet Union, the ex-enemy countries and the numerous countries of Africa and Asia that gained their independence soon after the war are also members. But the United Kingdom has provided no less than three Chairmen of the UNESCO Executive Board (Sir John Maud, as he then was, General Sir Ronald Adam, and Sir Ben Bowen Thomas) and no country has matched this record. We also gave UNESCO its first Director-General, Sir Julian Huxley, whose policy was to give all sorts of educational, scientific and cultural activities an international dimension. The United Kingdom still plays an important if not so dominant a part. In view of all these things it is a little surprising that the work, and the difficulties, of UNESCO are not more widely known and understood in this country.

The first conception of the new organisation was of an educational

organisation, pure and simple. But in the preliminary discussions its scope was widened to include international collaboration in science and in cultural activities. In 1960, again through a lead given by this country (and in particular by the Minister of Education, then Sir David Eccles), the prior emphasis on education was re-affirmed, but this time in significant relationship with the economic and social development of the less developed countries of the world. Such development was, however, clearly dependent on scientific and technical progress, and in the succeeding general conference education and science were accorded something like a twin priority. The education programme nevertheless still commands the largest share of the general budget and most people feel that it is at the heart of UNESCO's work.

One must be clear as to the scope of this educational work. UNESCO is not a world Ministry of Education. It could not be and was not meant to be. It does not draw on the tax resources of the world as the Ministries of Education of its member countries draw on their national tax resources. Expectations as to what UNESCO could do have often ignored this quite crucial limitation on its powers and scope. The sum made available for its educational work in the current two-year period is $44,951,107: $16,337,907 from the general budget, the remainder from special international sources. The total comes to the equivalent of something like £18 millions a year. The Inner London Education Authority alone has an annual expenditure on education of some £150 millions. The UNESCO £18 millions has to cover work through the whole world. These proportions are not necessarily wrong. But what stands out a mile is that UNESCO must select such work as can be best done only through an international agency and even so must limit itself to applying its influence and resources at selected key points.

What does UNESCO spend its money on? The reader will have noticed that the money for educational work put at the disposal of UNESCO from special international sources now exceeds that granted from its own regular budget. These international sources are chiefly two: the technical assistance and special fund components of the United Nations development programme which finance pre-investment and investment activities in developing countries. They are for work in the member states of the agencies of the United Nations, and the fact that UNESCO has more from these sources than from its own budget means that its most important work is now 'in the field' rather than at headquarters.

Originally this was not so. In so far as UNESCO had a predecessor it was the Committee for Intellectual Co-operation of the inter-war years, and with this very much in mind the founders of UNESCO put great stress on the kind of educational collaboration in which developed countries might well engage. This was never its only purpose, but as more and more under-developed countries joined the organisation the less its relative importance became and the more stress was laid on assisting the less developed countries to extend their education and improve it as an essential condition for their economic and social progress. Whereas at first UNESCO educational work directly organised in its member states was limited to a few missions of inquiry and advice and a few 'pilot projects', with the great bulk of

its work centrally conceived and centrally controlled, the emphasis has now changed to supporting 'projects' for which member states request help and which UNESCO and the fund-giving agency decide should be helped. This new departure began with the setting up of the fund known as the Expanded Programme for Technical Assistance, now twenty years ago, and it developed further with the setting up of the Special Fund in more recent years. The work of the secretariat in Paris is important. It stimulates appropriate work in the member countries, 'vets' the proposals, keeps a watch on progress, and through the selection and advising of the 'experts' that are sent out, as well as through its general programme planning, co-ordinates the whole. But it is true now that if you want to see what UNESCO is doing you look much more at its work in the field than at what it does at its Paris headquarters. Hardly any one doubts that this shift of emphasis has been right. And this incidentally is why with us UNESCO affairs are handled by the Ministry of Overseas Development rather than by the Department of Education as they formerly were.

Take an example that will illustrate both these points, the scale of UNESCO educational work in the field and the importance of selecting key areas so that maximum impact can be made. UNESCO can do little by way of direct help in manning primary schools, and little at best in manning secondary schools. For one thing the language problem makes this impossible. There are something like 2000 languages in the world and teaching at least in the primary schools is almost always in the mother tongue. A seconded teacher or headmaster, even with three or four of the languages of world use at his command, would be able to do little unless he settled down to make a life-time job of it. Nor will textbooks in one of these major languages be usable as they stand. In any case the scale of primary education is too vast for an international agency to be able to do much directly. The brutal truth is that the main effort must be made, and the main cost borne, by each country itself, however poor it may be. But there is one way—and a tremendously important one—by which education in primary schools can be decisively helped, and with the advantage that the total scale is more manageable. This is through the training of teachers. The number of teachers is of course much smaller than the number of children in school, and if you train a teacher well, so that he understands and can use more modern methods, you get a multiplier effect, for he or she will teach several generations of children.

If you look up the part of the current UNESCO programme that deals with the training of teachers you will find some work financed from the regular budget: the provision of fellowships for key people to study how such training is done in more advanced countries, funds for studies to be made and conferences to be held, and plans for special courses to be conducted. Apart from some activities that have a teacher training element in them (such as the stimulation of a rural bias in rural schools), UNESCO intervenes at the regional level to the tune of $570,000. But under the technical assistance programme you will find more: $3 millions for assistance of national schemes of teacher training through the provision of visiting 'experts' and of equipment, and you will find 39 countries, from Algeria to the Yemen, as the beneficiaries. But you will find a much larger sum still, $11 millions odd, allocated from the Special Fund for the main-

tenance of a long list of teacher training institutions (and it should be remembered that the governments of the countries concerned themselves make substantial contributions to such work). There are 37 of these projects, ranging from a rurally-oriented training college in Cameroon to a technical teacher training college in Thailand.

In educational work of this kind the United Kingdom plays a considerable part. Indeed, our contribution in terms of men and knowledge is greater than our direct contribution to UNESCO's regular budget. We contribute between 6 and 7 per cent of the budget. But as Mr. Walter James points out in his excellent booklet, *Britain and UNESCO*, only France provides more 'experts' for service with UNESCO in developing countries than we do. He notes that at the beginning of 1966 France had 113 and the United Kingdom 106. The third country, Belgium, had 46.

Although the task of linking education with economic and social development is the major one there are many other things that UNESCO does or assists. Its work for better international understanding should be noticed. Its most successful activity here is through what is known as the Associated Schools Project. Through this scheme schools in the member states volunteer to undertake some special work, in accordance with their own curriculum and methods, that will give their pupils a better understanding of other countries. UNESCO runs the scheme and to some extent co-ordinates what is done. It is Mr. James again who points out that of the 300 schools or so that took part in 1966 over a quarter were in this country. The work of UNESCO in schools has been greatly stimulated here by the Council for Education in World Citizenship. Its annual conferences for sixth-formers, held in the Central Hall, Westminster, have no parallel for size and ambitiousness of programme in other member states, and recent visitors from other countries have expressed the desire to start something similar at home.

At present UNESCO is making a special attempt to find out how attempts to make people literate can best succeed. There has been some disillusionment with mass literacy campaigns. It is not too difficult to move in to an illiterate area, with modern equipment and a sort of commando team, and to stimulate people to learn to read or write. But, too often, when the team has moved away, the effort has lapsed and there has been little to show. Has there been too little point in learning to read and write in the state of economic development of the area? In a desire to test this UNESCO has started a dozen or so pilot projects in different parts of the world. Some of these do not seem to have been going too well. Why not? Was the selection of the situations wrong, or were more immediate causes the explanation (inadequate or unskilled staff, unsuitable materials, administrative miscarriages on the part either of UNESCO or of the government concerned)? UNESCO has been conducting an internal evaluation; and this is important, because one may learn as much from a failure as from a success. What is certain is that we must make a dent in this problem of illiteracy, for although the percentage of adult illiterates may be going down, because of the disastrous increase of the world's population in many countries the absolute number of illiterates is going up.

As an agency of the United Nations UNESCO works with the

Universal Declaration of Human Rights very much in mind. It tries to press its member states to diminish, and ultimately end, improper discrimination in education on grounds of race, religion or sex. Currently it has taken up once again the problem of unequal opportunities in education for girls as compared with boys. The causes of this often lie outside education itself, in history, in attitudes thought to be sanctioned by religion, in the belief that the education of boys is important because they will be the earners of money (forgetting that an educated mother may do more through the home for an educated next generation than a working father can), or in sheer prejudice. It is important that some international organisation should remind governments and their people that this really will not do.

Some of the work of UNESCO that is not formally in the Education part of the programme has obvious educational importance. It tries, for instance, to work for the free flow of educational materials between countries (and recently it has increasingly turned its attention to the all-important matter of the supply of books, where our own scheme for the provision of low-priced books to the countries of Asia and Africa that use English has been a successful pioneer and where the Commonwealth, as an organisation, is now maturing a further scheme). It is doing many other things, for which there is no space in this article. In most of these this country is playing a part.

Now it would be less than candid to suggest that all this is a success story. It is not. The general conference of UNESCO is too easily bemused with the importance of a host of things, either particular 'projects' or a particular part of the educational spectrum (at the last general conference it was youth—it might with equal justice have been pre-school education, or pre-vocational education, or university education). It has still to learn that there are some things, no doubt of great importance, that you had better not touch at all unless you can put quite a lot of money and men into the effort. There is a good deal of special pleading by delegates for something that will benefit their own country and too little disposition to act as those responsible for the organisation as a whole. And the documents that UNESCO puts out are rarely of real intellectual quality, or on the other hand clear administrative guides. There are defences that can be made of all these defects. Conducting an international organisation, in a number of languages, is a far more difficult affair than running an organisation in a single country. But it may be that the whole structure of the Specialised Agencies needs reconsideration. Professor Shonfield suggested many years ago that the World Bank was much better structured, being essentially an organisation run by skilled managers reporting at intervals to the equivalent of a shareholders' meeting. Certainly the machinery of international aid and development must be reconsidered, and action taken. It has in fact been reconsidered. Sir Robert Jackson was commissioned by the UN to do this, and his Report, published towards the end of 1969, called for much more central organisation and direction instead of the present devolution to a large number of sometimes collaborating but also sometimes competing agencies.

In considering what our attitude should be to an indispensable but at times frustrating international agency the reputation of our own country is worth a word. The contribution of the United Kingdom,

most observers from other countries would say, has been solid and real; but our tone of voice has communicated cautions, rather than enthusiasm, and circumspection rather than imagination. Rather often it has fallen to us to pour a douche of Anglo-Saxon cold water on some proposal that we really thought was rather a nonsense. Such a role, though ungrateful, has its virtues. But we are thought by some to tend to carry it over sometimes even when we do not think something good into an attitude that might be summed up in a phrase I have heard used myself, 'Well, let's keep it small, so that at any rate it won't do much harm.' Mr. David Blelloch, who served all his time in the International Labour Organisation, makes the same point in his recent book, *State and Society in a Developing World*. We seem too often the reluctant partner. Yet in fact we do pull our weight in practice. When we say 'yes' we mean it. We have thought out what 'yes' means and bring solid support to whatever we have said we would assist.

This balance, between the injection of hard sense and the generosity a new human institution needs, is a difficult one to strike. But in the new phase of increasingly world-wide organisation our British and Commonwealth experience has an immense amount to offer. The programme of UNESCO will have to change very radically and ever-increasingly reflect the educational part of a combined attack on the world evils of ill-health, under-nourishment, low economic and social standards, and, above all, ignorance. We have ended what was called the First Development Decade; and very disappointing it has been, with the gap at the end of it wider, not narrower, between the developed and the developing countries. We are starting the next decade with the so-called International Education Year. These Mother's Day namings seem a little gimmicky to us. Yet if they give an opportunity for serious stock-taking and renewed endeavour they will have some use. UNESCO, which has done something real with its limited resources of men and money, must do more in the 'Seventies', and do it better. But UNESCO in the end is its member states. We are one of these, rather an outstanding one (as I have shown), and we have a responsibility to discharge.

Can parents be helped in choosing secondary schools for their children? Research into the procedures of one authority reveals some of the snags.

Guided Parental Choice

G. E. WHALLEY

By the terms of the 1944 Education Act, children should be educated according to their abilities and aptitudes and, so far as is possible, in accordance with the wishes of their parents. These requirements are often difficult to fulfil at the same time. Parents, in making decisions of this sort, are influenced by their experience and knowledge of schools and by their ambitions for their children. It is difficult for parents to make an objective assessment of their child's ability and aptitude and their wishes are often in conflict with such an assessment. Perhaps the best example of this is provided by selection at 11+; because so many parents want a grammar school education for their children, often for reasons quite unrelated to their ability and aptitude, it has not been possible to pay much attention to parents' wishes and the 11+ examination has acquired undue significance.

To many people, one of the main advantages of comprehensive education is that it does away with the 11+ examination. This may be so; but it should be remembered that the purpose of the 11+ examination is to help with decisions about children's abilities and aptitudes and about the type of education they should receive. These decisions must be taken, although they need not be taken at 11 years old and need not be taken all at once; the abolition of the 11+ examination does not make the decisions less important nor does it, in itself, solve the problems involved in taking them. It is often suggested that we will solve some by paying more attention to the wishes of parents. Again, this may be so; but the abolition of the examination does not necessarily change parents' ambitions for their children and it certainly does not immediately increase their knowledge and understanding of our system of education. The difficulties involved in ensuring that children are educated according to their abilities and aptitudes are not removed simply by giving parents a choice, even if they are given advice and guidance. Similar difficulties are apparent in 11–18 comprehensive schools within which courses are chosen and they are particularly apparent in schemes of secondary reorganisation which involve a choice of *type* of school. This article describes the introduction of a scheme which involves a choice of type of school at 13, and considers some of the issues involved.

The Scheme

Before reorganisation the LEA concerned, maintained seven secondary modern schools and a mixed grammar school. Under reorganisation the former have become high schools and the latter has become a senior high school. When pupils leave their primary schools at 11 years old, they all go to the high schools. At 13, as the result of a process of guided parental choice, they may transfer to the senior high

school, which provides CSE and GCE O- and A-level courses. The pupils remaining in the high schools may take CSE courses or leave at 15. As a grammar school, the senior high school took a four form entry. It has been enlarged to become a 10–12 form entry school which no longer provides academic courses only.

There are two direct grant schools in the town—one for boys and one for girls. Each year the LEA sends 25 pupils to each of these schools. Before reorganisation they were selected by the 11+ examination. They are now chosen at 13+ when, as part of the guided parental choice procedure, a parent may ask for a direct grant school place. The 50 places are distributed among the high schools according to the number of 13+ pupils in each. If in some schools there are more requests than there are places available, the places are allocated by a random selection procedure. Steps are then taken to ensure that the pupils selected are capable of taking GCE O-level courses.

The scheme was introduced in 1965 when the 11+ examination was abolished and all the 11 year olds went to high schools. It was in full operation in 1967 when the parents of these children had to decide whether they should be transferred to the senior high school, to a direct grant school, or remain in their high school. The description which follows is of guided parental choice in this first year of the scheme's operation.

The Operation of Choice

After discussion involving the heads of schools, an administrative framework was laid down by the local authority. In 1967 the procedure was as follows. The details are important. From mid-January to mid-February the high schools were required to hold meetings at which parents were given information and advice to help them in deciding which school to choose. In the second half of February a letter describing the choice, a form on which it was to be recorded, and a leaflet describing the senior high school were sent from the education offices to the high schools and were taken home by all the second year pupils. Having stated their choice, parents were required to return the signed forms to the high schools. The high schools returned them to the education offices. During March and April administrative consideration was given to the choices. They were approved by the education committee early in May and parents were then informed of their child's school for the coming year. This framework did not lay down a pattern for the meetings with parents; it was left to each high school to decide on the form the advice should take and the criteria on which it should be based.

The explanatory letter sent to parents in 1967 deserves close attention. It stated that the senior high school provided a full range of courses, including those leading to the GCE, until the age of 18 and that the high schools provided courses to the age of 15 and CSE courses to 16. The letter mentioned that 25 places were available at each direct grant school and that these would be allocated by the education committee. If parents wished their child to transfer to another school they must undertake to keep him there until the age of 16 and probably until 18. If they wished him to remain at his high school and he proved suitable for entry to a sixth form course, he could be considered for transfer to the senior high school at 16. At the foot of the letter two

choices were given and one had to be chosen by deleting the other: (1) I wish my child to be considered for transfer to the senior high school, (2) I wish my child to continue to attend his/her present school. A space for signature immediately followed this. Parents were then asked to state their choice if they wished their child to be considered for transfer to a school other than the senior high school on religious grounds or for a direct grant school place.

It should be noted that there was nothing to prevent an individual high school giving its own information about the choice. Some did so, either at speech day or PTA meetings or in leaflets produced for the purpose.

The Choices

The 1967 group consisted of 838 pupils. Their parents chose as follows: senior high school 148; direct grant schools 62; high schools 603. Twenty-five pupils from one of the high schools—a voluntary aided school—were transferred, according to a long established practice, to a grammar school of the same denomination outside the town on the same basis as the transfers to the senior high school.

In a number of respects the choices are surprising. The direct grant schools have enjoyed a high reputation in the town for many years and were unchanged by reorganisation, yet the demand for places in these schools was not excessive. Neither was there a great demand for places at the senior high school; the 12 unsuccessful direct grant school applicants went to the senior high school but even then the school's intake of 160 was not much higher than the 130 or so it received when it was a grammar school. Certainly it was well below the number which the school had been planned to accommodate. How can this pattern of choice be explained? Does the somewhat restrained demand for transfers suggest that parents were being realistic and objective about their children's abilities and aptitudes?

The operation of guided parental choice can be looked at from several points of view. Because of the senior high school's important place in the scheme, it is looked at here from the point of view of the parents who chose this school. A total of 130 (81 per cent) of these parents agreed to an interviewer's visit and to answer questions about their choice. The interviews took place at home near the end of the pupils' first term in the school.

One or both parents of all but nine of the 130 pupils attended the high school meetings. Four of the nine had some advice by letter or from a teacher who called to see them. In five cases the decision to transfer was taken without consultation between the school and the parents.

Most parents said that they received advice in terms of a recommendation to transfer their child to a particular school.

High school advice	*No. of pupils*
To transfer to senior high school	76
To transfer to direct grant school	4
To transfer, but school not specified	32
Advised that child on borderline between high school and senior high school	3
To remain at high school	6
No advice or advice not clear	9
	130

Thus the vast majority of these parents accepted the advice of the high school and asked for a change of school; very few acted against the advice. Why did parents want their children transferred? Some reasons applied only in a few cases; the parents of one child thought the senior high school had better facilities, in two cases the school was thought to have better teachers, and the parents of six children agreed to the transfers because their son or daughter wanted to keep with friends who were moving. But in agreeing to transfer their children, the majority of parents were swayed by their ambitions for them—they wanted their child to 'better himself' or to 'get a better education' or because they had a particular career in mind. In 50 cases the decisive factor was simply that GCE courses were not available in the high school. There was no evidence that pupils were transferred because the parents were not satisfied with the high schools. In 22 cases the parents' satisfaction with the high schools and the fact that the child was happy and doing well there had made it difficult to decide to choose another school. A number of parents said that they would not have transferred their children had GCE courses been available in the high schools and many mentioned their child's reluctance to change schools.

However, this prompts another question. If there is this strong wish to give children the opportunity to better themselves, even if it means leaving a school at which they are happy and doing well, it would be expected that more parents would want direct grant school places—these schools have high reputations nationally and locally. Why did so many parents not choose a direct grant school? The parents who requested a senior high school but not a direct grant school place were asked this question. Their reasons can be grouped as follows:

Reason for not requesting a direct grant school place	*No of pupils*
Because the uniform, etc. would be too expensive	2
Because they are single sex schools	2
Because child might be disappointed if not given a place	2
Because of direct grant schools' higher social status	20
Because child wanted to stay with his friends	22
Because of insufficient ability and not recommended to go	46
Because parents did not realise that the choice was available	30

(In six cases, two reasons were given)

Many points made in answer to this question showed parents' misunderstanding of the relative functions of the senior high school and the direct grant schools. 'Didn't consider it. It's a lot harder than at the senior high school. You have to take it in first time.' 'I didn't think he was brainy enough to go'. 'Had she been in the "A" form, yes—but she was in the "B" '. Equally striking were the remarks that showed misunderstanding of the part played by the direct grant schools. 'I think there were only three places at the girls' school. Anyone couldn't put it down'. 'We weren't given any choice about that. There was only a limited number of places'. 'He didn't have the chance for there; the form only said senior high school'. 'No, you couldn't ask for the direct grant schools. They said there would be so many places and that those with the high ability would have them'. 'Never realised he could go'. 'I don't think they take them at 13'.

These remarks, and many others like them, were not isolated examples of misunderstanding due, perhaps, to the parent having forgotten pre-

cisely what the choice involved by the time of the interview, but are typical of similar statements made by numbers of parents. In some cases they were largely associated with particular high schools.

It became apparent from discussion with parents that the Authority's explanatory letter had not prevented misunderstanding of the scheme and of the choices offered. In some respects it was misleading; it did not mention the CSE courses at the senior high school, it suggested that pupils who transferred to the senior high school would probably be required to stay at school until they were 18, it asked for a choice between high school and senior high school and *then* asked, after the signature, whether a direct grant school place was wanted. In places, some parents found it difficult to understand. The precise nature of parents' choice is perhaps inadequately expressed by stating that 'consideration is given, on parental request, after expert educational guidance has been given as to whether a transfer should be arranged . . .', particularly when at least one high school had, in effect, told its parents that no child whose parents asked for a transfer to the senior high school would be refused a place there. Not all parents were aware of the differences between the CSE and the GCE. A few parents did not realise that the 'direct grant schools' to which the letter referred were, in fact, two schools that they knew well by their specific names. It should also be noted that the letter was accompanied by a leaflet describing the senior high school but not by similar information about the direct grant schools.

The high schools differed considerably in the additional information they gave to parents. Some of the parents of one school said that they were told how the direct grant school places were allocated—that it was a random selection which did not necessarily select the most able pupils. (This information was not given in the Authority's letter and was not generally known). This high school had more requests for direct grant school places than any other and accounted for 8 of the 12 unsuccessful applicants. Some schools, and one in particular, gave parents the impression that a transfer could be requested only if the high school advised that the child was sufficiently able. Another school produced its own explanatory letter which told parents that 'a choice is available so that your child may have the opportunity to follow a more academic course if he or she is suited for such a course, or if you as parents wish your child to follow such a course, or if you merely wish your child to attend the senior high school'. It is difficult for a school to give information generally which does not seem to sway parents one way or the other. For example, the same school listed in its letter the advantages it offered to pupils who remained there—a smaller school, run almost on a 'big family' basis, work graded to suit each pupil's ability, a practical and realistic education and the opportunities to take the CSE examination (which, the letter made clear, is equal to the CSE examination taken at the senior high school) and to transfer to the senior high school at 16.

When parents are forming an opinion of their child's ability they are likely to be influenced by his school stream, his form position and the comments recorded on his school reports. So far as the 1967 group was concerned, the high schools differed, sometimes considerably, in the form of streaming they used, the methods by which they streamed, their policy for movement of pupils between streams, the frequency

and nature of internal examinations and the use of criteria such as form positions. This meant that some parents knew that their son or daughter held a particular position in a particular form, while others had little comparable information. One school, for example, has an 'A' band of two forms and does not give form positions; many of these parents felt that had insufficient information about progress and that they were given their only definite information at the parents' meeting held to consider the choice.

Conclusions

Is this scheme likely to ensure that children will receive an education suited to their ability and aptitude? Two criteria can be used:

1. Are pupils transferring to the senior high school in the right numbers? Under reorganisation this becomes a large 10–12 form entry school which is planned to cater for almost half the age-group. Together with the direct grant schools it provides all the GCE work, and presumably should provide most of the CSE work. But in 1967, 160 pupils entered the school; in 1968 and 1969 the numbers were 213 and 186 respectively. These figures represent 26 per cent, 33 per cent and 29 per cent of the age group. Each year many pupils who could be expected to transfer to the senior high school have stayed in the high schools. The extent to which they follow suitable courses there will depend on each school's resources. However, they cannot take GCE courses and, even if this was permitted, it is doubtful whether any high school could provide a range of GCE and CSE courses and, at the same time, cater for the less able 13–15 year olds which are certainly their concern.

2. Are the pupils who did transfer the ones who will benefit most from the courses provided elsewhere? It is reasonable to assume that, on the whole, the most able pupils would transfer. In 1967, most of them came from the 'A' forms of the high schools, but whether this means they are the most able pupils depends, of course, on how each high school determines membership of the 'A' form and how it measures performance within it.

It is doubtful, therefore, despite the advantages of the scheme, whether as many children as possible are being educated according to their ability and aptitude. It would seem that certain points are particularly important if schemes involving guided parental choice are to be made as effective as possible.

Obviously parents require a full description of the whole scheme, written in language they can understand, and a clear explanation of what the choice involves. In producing this it should be remembered that parents have for many years been more used to a nominal choice at 11+; they were given a choice, but they could have their choice only if the results of the examination agreed. It seems to be difficult for some parents to realise that guided parental choice as used by this local authority is a process which does take note of their views, that it is a process based on the assumption that the most useful decision about a child's education is one which uses evidence from both teachers and parents and that it is important that they allow their point of view to be expressed in making the choice. But if advice is given simply in the form of the name of the school to which the pupil should go, a parent must either agree or choose another school—he is put in

a position in which he must either accept the advice or reject it. The latter may be difficult; many parents did not themselves go to a grammar school and they lack the knowledge and assurance which might enable them to choose a similar school against the advice of a teacher.

However, there are two points which are perhaps more fundamental. A necessary preliminary to putting together full information about a scheme such as this would be a careful consideration of the role of each school, including direct grant schools. The schools here have previously fulfilled roles with which most people are familiar. Now the roles have changed, although the buildings, the teachers and the uniforms remain the same. The senior high school continues to provide similar courses to those of the direct grant schools, but it is no longer a grammar school and now takes many boys and girls who would previously have attended secondary modern schools. The high schools now have two functions; they must cater for 11–13 year olds representing the full ability range and they must also provide courses for the less able 13–15 year olds who, in the main, will not be concerned with external examinations. A careful definition of each school's function would help parents to understand the changes and it would help high schools in deciding, for instance, what proportions of pupils should transfer. This prompts the second fundamental point. This is *one* scheme in which the schools must work closely together. It is difficult to justify an arrangement which left each high school to decide for itself all matters to do with testing, streaming and the diagnosis of ability. The high schools carried out thoroughly the work of advising parents, but it is also difficult to justify a system in which each high school could decide the form in which parents were advised and produce material which gave a distinctive view of what parental choice involves.

Clearly, the abolition of 11+ selection and the introduction of a scheme of reorganisation based on guided parental choice, or indeed the introduction of any scheme, does not mean that inevitably more children will be educated according to their ability and aptitude. The local authority with which this report is concerned is aware of this and is following very closely the working of the scheme. It is obviously essential that every authority should watch as critically the working of its own scheme.

After studying the role of the computer in American education the author considers its impact in the U.K.

Computers in Education

PHYLLIS M. ASH

As the computer makes a steadily greater contribution to modern society so it becomes increasingly important that young people should be given the opportunity to appreciate its capabilities and limitations, and to learn of its application in various fields of human activity. Careful thought is being given to this and one significant document is the interim report of the Computer and the Schools Committee* set up by the Scottish Consultative Committee on the Curriculum. Much valuable work is being undertaken through the initiatives of the technical colleges, universities and schools. In addition to the extensive work in computer appreciation courses in colleges of further education, the needs of the personnel in the expanding computer industry are reflected in the increasing number of courses in computer studies now available in those establishments.†

It is on the use of the computer as an instrument in the educational process—quite apart from its value as an aid in the administration of education—that attention is now focussed. Computers are being used to a considerable extent in various courses in further education and their influence upon the development of the curriculum and methods, for example, in engineering and business studies, is beginning to be felt. During the last two years the National Council for Educational Technology has undertaken extensive investigation into computer based learning systems. The three resultant documents‡ provide a comprehensive review of the developments in this field at the present time and make recommendations for research projects.

It is not without some apprehension that many teachers view the intrusion of the computer into the classroom. Some regard it as a complex machine which they may find difficult to use and others see it as a threat to their status. There are those however who perceive in it a potential means of support and assistance in their work and a few recognise its possible contribution to curriculum development and as a resource through which the learner's experience may be extended beyond the bounds set by current educational practice.

Unfortunately for many the computer and its possible uses tend to be shrouded in mystery. A brief examination of the principal features of the computer may serve to dispel this and perhaps point to its potential

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* Published by HMSO February 1969.

† *On Course* Bulletin No. 2, prepared by the Department of Education and Science and the Central Office of Information 1968.

‡ Working Paper 1: *Computers for Education*; Study Team Report: *Computer based learning systems; Computer based learning: A programme for Action.* Available from the National Council for Educational Technology, 160 Great Portland Street, London W1.

capabilities and limitations in the educational field. Essentially the computer is a machine capable of accepting, storing and processing large quantities of data at high speed. The main components are a central processer, auxiliary storage units and terminals through which users can communicate with the computer. The machine operates according to a set, or sets, of instructions programmed into it in computer codes or languages. These languages (described as high-level when code words cover complex operations, and low-level when they cover comparatively simple instructions) make it possible for the machine to be programmed to carry out the tasks it is required to do. The rapidity with which the computer works and the great quantities of material it handles logically can give the impression that it is 'thinking' and, within the framework in which it is operating, of responding to questions. It does not in fact think for itself, but is dependent upon suitable programming.

Can such a machine contribute to the educational process? Generally educational processes involve interaction between human beings, between the student and the physical world, and between the student and records of all kinds, including books, audio and visual materials. If the computer can contribute to any of these areas of interaction, or combinations of them, then the means whereby this can be done becomes at once important. Firstly, the terminal device which enables the student to communicate with the computer, and the computer with the student, is of immediate significance. At the present time the terminal most commonly in use consists of a teletypewriter and keyboard. Material is conveyed to and from the computer by typing out a message on a typewriter keyboard; these are converted to teletype signals which are printed on a continuous sheet of paper, or print-out.

An alternative, which is quieter in operation than the teletypewriter, consists of a cathode-ray tube and keyboard: material is presented on the screen which then displays the response made by the student on his keyboard. He may also point with a light-pen to a particular part of the screen, thus causing the computer to present the next appropriate frame. Ancillary devices which may be linked to the student terminal include display units on which slide or film may be shown, and audio-units through which the students may hear recorded material or commentary. Other terminal devices, as yet in research stages, include 'touch-wire' systems and means whereby the computer may accept written responses. Some terminals have additional facility for drawing a graph, but generally the teletypewriter is restricted to printed alpha/numeric symbols. On the other hand the cathode-ray tube offers greater freedom to use graphics and vectors also. The nature of the computer is such that if it is used as a medium in the learning process the range of possible responses which a student may make, must be predetermined, so that by matching (for example in a multi-choice question) or scanning for key words, the correctness or otherwise can be assessed by the computer. Thus a completely freely constructed response cannot be monitored at present. Also the possibility of the computer accepting and handling a spoken response remains remote. These constraints are much less important when the machine is used as a tool in computation and problem solving: of significance then is the means available for conveying the data to the computer, and for presenting the results in a form—for instance, in tabulations, graphs or diagrams—as desired by the user.

Secondly, how can the teacher ensure that appropriate work is presented to his students, or, alternatively, that they are enabled to use the computer effectively? At present the originator of a task which requires a computer may not be able himself to communicate it directly to the machine unless he has first learned the necessary computer language. For complex work, such as a learning programme which includes a number of branches designed to meet the needs of individual students, the author may have to rely on the assistance of a trained computer programmer. A teacher using such a programme for his students may not be able to adjust it to meet a particular need. However, for other purposes such as computation and problem solving in mathematics and science, the complexities involved in programming are not such as to inhibit the use of the computer by teachers and taught, as is already demonstrated by experiments in this country and abroad. But for wider applications there is a need to develop languages which would enable teachers readily to write their own programmes, adjust them as the need arises, and to enable the learner also to participate in the organisation of his learning programme.

If computers have a role in education will each establishment need its own installation? At present in this country the preparation of the tasks or programmes is often carried out as an operation completely separate from the actual use of the computer. The prepared work may be fed at prescribed times into the computer via a terminal placed in an establishment linked to the main installation by a land line (or data link) which can be a telephone line. Alternatively, prepared material can be sent by post or carrier to the computer installation for processing, in which case there may be considerable delay between the preparation of the programme and the receipt of the results. While this 'off-line' use (or batch processing mode) may be adequate for certain purposes, such as record keeping and certain aspects of diagnostic testing and assessment, as well as some mathematical computation and problem solving, the full potential of the computer is often more effectively realised when the user is linked directly, or is 'on-line', to the central installation. This can be achieved by setting up a complete installation dedicated to particular uses or to a group of users. Alternatively, a shared use is possible in which a number of student terminals in several different geographical locations may be linked to a central computer. For many educational purposes on-line working via such a multi-access terminal system is preferred, and indeed, is essential for certain direct uses in the learning process. This gives an immediacy of response and, although others may be using the computer at the same time, its speed of operation gives an individual a sense of having the entire resources of the machine at his disposal.

The most obvious and immediate assets the computer offers to education are its enormous memory store which can be searched and produced at high speed and its capacity to handle mathematical calculations and problems. It can aid the collation and assessment of data and deal rapidly with laborious calculations which may arise, for example in scientific, economic and engineering studies. This application is further used in computer simulations which are already incorporated in many management studies. Simulated situations may be devised in which the student might apply learned principles, test hypotheses, and discover the best solutions possible to realistic

problems. These may well be areas of considerable educational potential for two reasons. Firstly, freeing the student from handling many repetitive calculations would enable him to devote increased attention to the underlying principles and to the more creative aspects of his studies. Secondly, his experience may be extended and enriched in ways not otherwise possible. In the long term, the availability of computer facilities in education could lead to some re-appraisal of approaches to learning in certain areas of the curriculum, for example, in some mathematical, scientific, economic and engineering studies, and maybe in others also. A notable example of development of this kind is in Dartmouth College, New Hampshire, USA, where the utilisation of computer facilities has transformed the course in chemical engineering, making it possible for the students to extend their experience beyond the confines of more conventional courses.

The role of the computer in education may not be confined to that of a calculator and simulator of realistic situations in mathematical, scientific, technological and economic activities. Since the computer can accept, process and store data, match structure to structure and operation to operation, and provide instant recall of stored and processed information it may also be capable of direct use in the learning process. It would, for example, be possible to present information by computer, though at current costs it would be uneconomic to do so. Experiments are in progress, notably in the USA, which demonstrate the possibilities of using the computer as a learning machine. Material is presented by computer to the individual who is called upon to make a response at the terminal; he is immediately made aware of its correctness or otherwise, and on this basis the next appropriate step in the argument or structure is provided. A possible value of this—computer assisted instruction—is in presenting those parts of subjects such as are to be found in mathematics, science and languages which contain structural fields, or call for some sequential learning technique which can be programmed. If properly co-ordinated with other parts of a course one of the potential benefits here appears to be in relieving the teacher of some of his routine tasks, and allowing him to use his time more effectively in other aspects of his work.

It is perhaps worthwhile mentioning the diversity of the projects in computer assisted instruction in schools, universities, the armed services and industry, some in this country and many in the United States of America.* There are examples of computer programmes in drill and practice in arithmetic and in reading for young children, and in remedial reading, biology and mathematics for older children. In some American universities computer assisted instruction projects include an ever widening spectrum of subjects—science, mathematics (including statistics), German, French, Russian, geography, social science, computer studies courses and training in medical diagnosis. There is experiment too in skills training in the armed services and in personnel training schemes in industry. In all these courses the proportion taken up by the computer element varies considerably, but seldom constitutes the whole course. Careful co-ordination with other aspects of the work therefore becomes of paramount importance

* Details are given in a supplement to the National Council for Educational Technology Study Team's Report *Computer Based Learning in the USA*, available from the National Council for Educational Technology.

and except in a few cases appears to have been difficult to achieve successfully. A further problem is in the development of programming techniques, for the potential capacity of the computer to monitor numerous alternative branches in individual learning sequences has yet to be fully exploited. In addition, the determination of the effectiveness of computer assisted instruction compared with other learning techniques presents all the difficulties inherent in attempting any form of controlled educational experiment.

Assessment and diagnostic training techniques are usually incorporated in computer assisted instruction programmes and these allow students to be directed to learning sequences according to their individual needs. If this aspect is considered separately then the possibility emerges of using the computer for testing and diagnosis as students progress through a series of learning modules or 'packages'. These studies are undertaken independently of the computer, the student taking a diagnostic test at the computer terminal at particular intervals. Thus the teacher would be relieved of the work of testing, receiving instead computer assessment of individual students' progress. He would then be able to devote his time more fully to assisting and guiding his students. This application—computer managed instruction—appears likely to be more flexible in operation than computer assisted instruction, though it would require a similar level of careful planning and co-ordinating of all aspects of the work within any given course of study.

When knowledge about the total range of potential uses of the computer in education is as limited as it is today, the field is open to subjective judgement. Consideration of current educational trends in the primary phase and in the early years of the secondary phase suggests that the computer is unlikely to be applied extensively in these areas yet. Wider applications may very well be found in the later stages of the secondary phase, in further, higher and adult education and in industrial training. We can certainly learn and profit from the experience of those already experimenting and with that in mind look forward to further research into the uses of the computer in education.

One area of exploration in the use of computer assisted instruction is in devising learning programmes in such subjects as mathematics and languages for students who wish to reach an acceptable level of proficiency for a particular purpose. Such students may be in sixth forms, technical colleges, colleges of education or universities, having the need to fill gaps in their knowledge, to improve their standards or to support their main studies. They may also be adults, who, for reasons of career prospects or demands of their work, may need to improve their qualifications. Indeed, in an age of rapid technological change the computer may become valuable in courses of training and retraining which are likely to become a normal feature of the individual's working life.

If the trend towards independent and group work continues with its accompanying need for periodical assessment of individual students' progress, then computer managed instruction techniques may have very wide application in the educational system. Perhaps some investigations in this field could be linked with existing curriculum development: others may break completely new ground.

Possibly the most valuable resources the computer offers to education are its high speed memory, combined with its capacity for dealing with computational work of all kinds, including simulations of realistic problems. Further experiments and investigation into these facilities, being pioneered in the universities, colleges and schools, are essential, for these uses, which may lead the learner to extend his experience beyond conventional bounds, could have a very significant impact upon the curriculum.

Systematic research is needed into all these uses in order to assess fully the ways in which computer resources might best be harnessed to meet the needs of the learner. Teachers in schools, lecturers in colleges and universities, computer experts, and the local education authorities' officers should all be closely involved from the beginning. It will only be through their combined knowledge, skill and effort that the full potentiality of the computer in education will be effectively explored and exploited.

Two experimental schemes to create circumstances in which college lecturers and teachers in schools can work together.

Colleges and Teachers

K. G. COLLIER

This article must begin with a personal note. Over the course of 20 years spent in teacher-education, I have generally had cordial personal relations with the heads and assistant teachers with whom I have been in contact. But I have also often felt that those relationships, whether in the personal or the professional sphere, did not develop in depth or in content; they tended to remain at a superficial level. This may have been due to failings in myself; but my observations suggest that it is much more a function of the fact that we belong to institutions with overlapping functions and inadequate inter-communication.

Before 1939, when 75 per cent of the colleges had less than 150 students, heads of education departments often maintained over the course of many years close relations with a large number of heads, many of whom were ex-pupils. Other individual lecturers of long-standing also contributed to this close understanding. It was practicable for the relationship to be a real working partnership. But with the growth of the colleges, with the continual re-adjustment of links between colleges and schools, and with the competing claims of BEd and college re-organization, very few lecturers can hope to achieve now this close working contact with serving teachers.

These observations, which are personal impressions for which I could not quote hard objective evidence, form the context of two experimental schemes with which I have been associated in recent years. Both have been designed to strengthen the bonds between college lecturers and teachers in schools, by creating circumstances in which they could *work* together regularly.

Teacher-Tutor Scheme

The first of these is the teacher-tutor scheme, of which an interim account has been published (*Education*, 28 March 1969). The essential features of the system are two: a teacher is appointed to take responsibility for the students in his school; and he attends with other teacher-tutors and college staff weekly meetings during school practice. The appointment is made by the college in conjunction with the head of the school and the teacher-tutor is paid by the college an honorarium in respect of his attendance at the weekly seminars. He is therefore in effect a part-time member of the college staff for this period. The discussions are usually led by a selected individual, whether tutor or teacher, and the subjects dealt with include both the problems arising from school-practice organization and the principles of teaching of the various school subjects. Meetings are held either at the college or in regional centres.

The number of schools involved has been kept small in order that a fair appraisal of the scheme may be made before decisions are reached on its extension. In junior schools the teacher-tutor has usually been the head; in secondary schools he has been a senior member of staff, but the heads have generally taken a keen interest. Although it may not be possible for a teacher-tutor to give detailed advice on all aspects of the secondary curriculum, there are always some aspects of class management on which he can help a student, and he can direct him where to go for specialized guidance.

The principal objectives have been to involve school staffs more fully in the supervision and guidance of students; to provide for full exchange of views and information on school practice problems; and to provide opportunities for school and college staffs to work out together the principles underlying the advice and instruction each gives to the students. The prima facie evidence is certainly very favourable to the system and a pilot study is now being made of its effectiveness.

Consultative Committee

The second experimental scheme is a consultative committee between a particular college and representatives of three teachers' organizations in the area. In this case, it will be noted, a 'political' element has been introduced: I have increasingly felt that it would be inappropriate to set up a consultative machinery between lecturers and teachers without reference to the professional associations. Hence, following informal talks in the winter of 1966–7, a decision was reached to set up, on an *ad hoc*, experimental basis, a Consultative Committee consisting of three representatives each from the Durham County Federation of Head Teachers' Associations, the National Union of Teachers, and the National Association of Schoolmasters, together with the vice-principal and the heads of education, English, religious knowledge, mathematics and science departments of the college, meeting under the chairmanship of the principal.

Appraisal

The college recently carried out an interim assessment or evaluation of this scheme. The elements of an evaluation are three:

(a) To specify the objectives or functions of the scheme.

(b) To state the criteria by which one would judge the effectiveness or otherwise of the scheme, and hence the evidence one would look for in making an assessment.

(c) To assemble the evidence available. In the first stage of an evaluation the evidence will be unsystematic and subjective. At a later stage it is necessary to obtain more systematic and objective data that can be subjected to statistical analysis.

Following the above introduction, the *functions or objectives of the scheme* may be specified as:

(i) To enable representative lecturers and teachers to meet regularly to exchange views on the professional training of teachers;

(ii) to hold such meetings sufficiently often for the two sides to work together effectively and hence build up a more coherent and consistent approach to students' practical work in schools; and

(iii) to bring this about through the involvement of the relevant teachers' organizations.

These in turn suggest *four criteria by which one would judge the success or otherwise of the scheme*. Each points to certain kinds of evidence.

(i) Has the scheme produced consistent and constructive argument at its sessions? Has the committee brought out criticisms into the open and led them into constructive channels?

(ii) Has there been any influence on the relations between the teachers' organizations and the college?

(iii) Has there been any visible effect in the schools with which these particular representatives are associated, in terms of improved relations?

(iv) Have there been any indications, positive or negative, of the members' attitude to the meetings of the committee?

The *evidence available*, at the present stage, to somebody other than a professional research worker who could conduct structured interviews, was fragmentary and subjective, but it is interesting and suggestive. Amongst other things, it points strongly to the need for greater resources in the colleges to evaluate their own experiments and courses.

With regard to the first criterion, my personal view is that adverse criticisms have been brought out by both sides and have given rise to very fruitful discussions. The antagonism sometimes expressed towards the payment element of the teacher-tutor scheme mentioned above (in respect of attendance at out-of-school seminars with college staff) has not only received open discussion but has stimulated the elaboration of an alternative scheme of 'student advisers'. This can fairly be called a creative development. One teacher member has suggested that this could scarcely have emerged except from a confrontation between those who believed in the exceptional value of the teacher-tutor type of collaboration and those who believed in the importance of avoiding the element of payment.

Again, criticism of school practice dates by a teacher member brought out into the open the complexity of demands that had to be met by the college in organizing school practice and led to a fuller acceptance of the inevitability of inconvenience for some and a recognition of the efforts made by the college to suit as many people as possible.

A college member who was formerly a headmaster has suggested that this kind of consultation can go some way, through its continuing deliberations, to building up a body of consistent thinking in new areas of collaboration between colleges and schools.

With regard to the second criterion, members of the committee have emphasized the importance of regular reporting back of representatives to constituents, and in one case an appreciable and favourable change of attitude is reported. But some doubts are also expressed as to how far the reporting back penetrates to the ordinary teacher in the classroom.

Another member, a teacher, noted the value of an exchange of views among representatives of the three teachers' associations, over educational rather than political questions.

The strongest evidence, however, in relation to the second criterion has been the official approach of the County Federation of Head Teachers' Associations to the university institute of education for the setting up of similar consultative committees in other colleges.

With regard to the third criterion, one teacher member noted that he is able to talk to lecturers in a more informed way and with a greater degree of understanding than before, and that he has used the knowledge gained from listening to his colleagues on the committee to try and help his own colleagues in his school to appreciate the situation regarding students' training.

Nevertheless, the same reservation expressed above was also expressed under the present heading, namely with regard to the effectiveness of the present system of reporting back. It also appeared difficult to set up a satisfactory 'control' situation for such an experiment as the present.

With regard to the fourth criterion, my personal impression is that an atmosphere of confidence and freedom has been developed which is of considerable value in itself. Several members have emphasized the value of *working together* on the committee in building up a real knowledge and understanding of one another's problems and views. Two have commented that the position so far reached has led to a realisation of how much further there is to go in building the kind of collaboration that they believe is really needed.

A county inspector discusses the planning and conducting of an extensive programme of courses for teachers.

In-service Training in Kent

H. K. BELL

In-service training is growing in volume, range and interest. There has surely never been a time when keeping up to date presented so diverse and formidable a challenge. No doubt each education authority could report a variety of measures for ensuring that its teachers have the best possible opportunities.

In Kent the figures speak for themselves. During the academic year 1968–69 about 9,000 teachers serving in 150 secondary and 570 primary schools have registered over 7,000 attendances at conferences or courses arranged by or with the support of Kent Education Committee. Even after making allowance for those whose names appear on the registers of different courses, these figures show the degree of importance that teachers, as well as the Authority, have come to attach to this work.

Varied outside help with it has long been available. There are the one-year and one-term courses held at universities and colleges and planned on a nation-wide pattern by the Department of Education and Science. In Kent at any one time about one per cent of the teacher force is in attendance at such courses. About two per cent attends part-time courses in order to obtain some further qualification. Then there are the short courses and conferences held mainly in the holidays or weekends and organised by various bodies, including the department, the colleges, and institutes of education and professional organisations. Occasional large conferences are organised by the Kent County Association of Teachers.

In much of the planning the participation of teachers is at the heart of the matter, and this implies a reliance on local arrangements backed by the resources of the authority. Kent is divided into thirteen educational divisions. In each a teacher is locally chosen as courses secretary and acts as a link with the authority concerning teachers' suggestions and the planning of courses. Ideas may be discussed with members of the inspectorate, and financial support is given to the programme agreed for each area—on average about five sessional courses per division a year. The subject range is wide.

Teachers' Centres

In some areas teachers' centres are now adding a new stimulus and interest. The immediate impact of a teachers' centre is greater either if the area is about to reorganise its schools, making discussion essential between the teachers involved; or if the teachers in the area are taking part in some curriculum development project.

Kent's first teachers' centre opened in 1965, in Folkestone, shortly

after the division had been chosen as a pilot area for the Schools Council's junior science and mathematic project. It became the focal point within the county for this work among other more local projects. It is also associated with the Schools Council's science 5–13 project. In a similar way the centre at Tunbridge Wells is involved in the secondary science project, with special reference to young school leavers, and with the project on resources for learning. A school is linked with the centre for the trial of materials evolving from this project. Recently the Folkestone centre cooperated with the county's residential college (of which more is said below) in a weekend course on science 5–13, for teachers from other areas. The teachers, who attended the course in selected teams, have joined in development programmes in their own areas, using one of the other teachers' centres as a base.

By the autumn of 1969, there were already seven teachers' centres in the county. More are being planned and will open as soon as money becomes available. The committee expect to provide premises that, by skilful redecoration and choice of furniture, give a pleasant and relaxed atmosphere. Some are housed in a part of a building still used by a school or college; others are able to take over small buildings, such as an old school boarding house, that would otherwise be redundant. Each centre is managed by a small committee of teachers, who maintain links with the county and its general policies through the divisional education officer and the authority's inspectors. After a centre has run for perhaps a year, mainly by voluntary effort, a part-time warden is likely to be appointed, who will spend about half his time teaching in a local school. Five centres so far have a warden who has been appointed on this basis.

County Initiative

When all this locally based activity is taken into account, however, there remains much to be done on the initiative of the authority itself and with a county-wide scope. Thus, near Maidstone, there is a county centre for rural science; a music course for teachers has now become an annual event in the Easter holidays at Nonington College of Physical Education. The presence in the county of a convent school largely staffed by French nuns becomes especially valuable when a group of primary teachers goes into residence each year for over a week in order to develop their French in conversation with their hostesses. A wide range of physical education facilities is offered and as many as thirty activities have been dealt with. For some more ambitious training programmes teachers have to be sent outside the county—for instance to Wales for experience leading to the Mountain Leadership Certificate. Two-year courses in speech and drama, based on weekly meetings, are held at four centres and may lead on to qualifying examinations. For teachers of slow learners, a new one-term full-time course, that may well be the first of a series, has been directed by the Chief Educational Psychologist with assistance from his colleagues and from Sittingbourne College of Education.

Residential College

Residential courses were for many years held at Kingsgate College, Broadstairs, a college owned by the YMCA but leased at certain week-

ends to the education committee. Facilities were augmented early in 1967 when Eversley College was started in Folkestone—the committee's first residential centre. After extensive adaptations and the appointment of a full-time warden and staff it now offers residential accommodation for 70 course-members and tutors.

The governing body of the college includes not only elected members of the education committee but also representatives of the teachers and of the University of Kent at Canterbury—itself almost as new—with which the college has close links. An advisory committee of teachers, education office staff, and Kent University staff, draw up the Eversley programme, under the chairmanship of the chief education officer. They look to three main sources for ideas, organisation and participation: the County team of inspectors and advisers, the teachers themselves, and outside bodies such as H.M. Inspectorate, universities and colleges, and specialists in the industrial or research fields.

Most of the courses held at Eversley are for teachers. They continue, apart from holiday intervals, throughout the year. The principle has been widely accepted in the schools that teachers should attend not only at weekends but in school time. In fact, in 1968–69, of the 135 days on which teachers' courses were in progress at Eversley, some 68 per cent entailed whole-day absence from school. Release may extend to five days at a time but is normally for two or three. At periods when absence from school is particularly difficult, courses are held for other sections of the county council's staff—for example, youth workers, administrative staff and school caretakers. For the same reason June is the month for the course arranged for the 40 or 50 foreign language 'assistants' who spend a year in Kent. This course is now reaching its eleventh repetition; it lasts six days and sets out to present a picture of the English educational system—in talks supported by visits to representative schools.

Planning of Courses

From their knowledge of subjects and the schools and from their contacts outside the county, the team of inspectors and advisers is able to plan and direct courses on particular subjects, and on teaching methods and new areas of educational development within the primary and the secondary fields. Many of these are repeated in amended form from year to year, since the needs of the schools can never be met within any one programme. A particularly happy series, now in its sixth year, is for the heads of small rural primary schools—of which Kent has as many as 121 with two or three classes.

In other parts of the Eversley programme, emphasis is laid on giving teachers opportunity to familiarise themselves with new methods and materials being developed nationally, as in the School Council's science projects. Since 1966, 433 teachers in Kent secondary schools have attended one of the five-day 'familiarisation' courses now held twice yearly on Nuffield O-level science. These courses are planned in three separate parts, each for about twenty teachers—of physics, chemistry and biology respectively. During the first two years, emphasis has been on years 1, 2 and 3 of the 'Nuffield' course; but those who attended the earlier courses are to return for a further meeting that will bear upon the later years.

An analogous group of courses, at a more purely academic level, is

that conducted in association with the School of Oriental and African Studies, with the intention of bringing to teachers up-to-date information on significant parts of the world. The new University of Kent at Canterbury is also helping Kent teachers to keep abreast of new knowledge, particularly in the field of advanced science. At Eversley a new kind of course has emerged, directed and staffed almost entirely by professors and lecturers from the University and designed not only to augment the teacher's knowledge as it applies to the classroom situation, but also to stimulate his ideas and opinions. In the first such course the social and political problems of Britain in the post-war world were examined, and a sequel is to be held in 1970. A course on science and religion, as might be expected, led to common room discussion far into the night. Further subjects will include the sociology of industry and the research being carried out by graduates and staff of the university into the economic and social history of Kent. Equally involving the university are the conferences for sixth-form pupils from selective schools and for pupils in their last year at other secondary schools.

In a major area of the Eversley programme come those courses of which the aim is to take account of changes already begun, or soon to begin, in the organisation of educational provision. Thus, as the county moves from tripartite to comprehensive organisation teachers from all the present type of secondary school need to plan to meet the needs of pupils within an ability bracket higher or lower than that with which most have spent their teaching lives so far. Already one Kent area has embarked on the transitional stage. Its former secondary modern schools now take the full range of ability in the first two years of their course, preparatory to transferring some pupils at 13+. In most cases their forms are either unstreamed or of wider ability range than heretofore. The teachers thus find themselves facing class situations new to them, yet familiar enough to many of their colleagues in primary schools. Such a situation gives additional point to a recently developed type of course in which teachers of older juniors and younger secondary-age children come together. Courses aimed at the needs of this 9 to 13 age-range have their further, and main, justification elsewhere, however, partly in the need for continuity at the existing age of transfer, which may well continue in certain areas for some years, and partly in the expectation of the three-tier form of reorganisation, to be established before long in other areas. There has been overwhelming response to the invitation to gather together to concentrate on the aims, the organisation, the accommodation and the teaching needs that will be appropriate to the middle school. In the 1969–70 programme two more such conferences find place. Others have set themselves to consider the working of particular subjects within this age range.

It is now over three years since plans began for a series of conferences on the raising of the school leaving age and its effect on the curriculum. After three general conferences for heads, the first two curriculum conferences were held in the early summer of 1966. Each lasted nearly a week and took as its theme 'A common aim for the humanities'. The intention was to bring together teachers of the humane subjects and set them to work exploring ways in which their subjects could collaborate. There was good response to the suggestion that individual schools should send two or three teachers, each representing a subject

discipline. The first five conferences were each in two overlapping stages, initially involving teachers of a particular subject and leading on in the second stage to a meeting of teachers of this subject and the other humane subjects, together with some heads. The aim has been to emphasise ways in which this field of work can contribute, first, to the individual's understanding of himself, of other people, of human relationships generally and of society; and, second, to his ability to make sound judgments and his sensitivity to spiritual values.

The subjects which play a part in the creative, expressive and aesthetic education of older pupils have been examined in a parallel series. The role of each subject was first considered separately, and then the part it could play in association with other subjects having similar aims. A pupil needs to devote reasonable time to any one of these activities without becoming cut off from the others. How to ensure this was seen as a problem which resolved itself into one partly of timetabling and partly of devising opportunity for joint projects to arise. In these, music, art, needlework and home economics, drama and creative dance might be used in various combinations, and on occasion mathematics and science are introduced. Further conference will examine developments that have since taken place at individual schools.

Heads and their more senior colleagues are closely involved with these and other developments, but have additional problems of their own in the overall organisation of school, curriculum and staff. The present programme includes conference for newly appointed heads, as well as on the social and organisational problems of large secondary schools.

Directing the Courses

Some would distinguish the course from the conference. Courses are for imparting information; for many they have inapt war-time training connotations. Conferences are for pooling contributions, testimony, inferences from experience. The distinction is useful in its implication for the attitude of those attending: one tends to invite passivity; the other, participation. Experience suggests that teachers value the conference principle. In formal sessions of plenary type, led by a visiting speaker, the tendency is growing for the whole period of perhaps ninety minutes to be treated in seminar fashion. Rather than the traditional pattern of sixty minutes of talk followed by thirty of question and answer, a more flexible procedure is coming into favour —of talk interrupted by contributions from members of the conference, invited or uninvited by the speaker. As children do, adults themselves feel a need to react impromptu, to raise queries and offer comment as the moment arises. Conversely, woe sometimes betides the speaker who presents his material in a way that seems to ignore the professional experience and sophistication of his audience.

Given a group not larger than about seventy, and given the helpful configuration of arc seating; given too, satisfactory chairmanship and a speaker who knows his subject well enough not to be tied to a set sequence of presentation, still less to a script, the seminar method has much to be said for it. Ideas have a better chance of being registered securely, of being considered fairly, perhaps of being accepted warmly. A speaker who can stand up to the give and take of such discussion and not lose his way, is the more likely to be convincing.

In the planning of the formal sessions variety of pattern is much to be

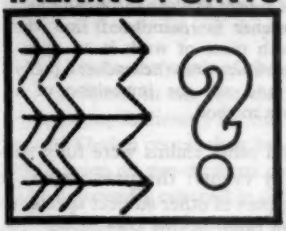
favoured. The symposium, in which three or four speakers offer brief contributions on a common theme, takes account both of the natural limits to some aspects, however important and relevant, of a wider subject, and of the variety of experience and opinion relating to it. Those from the front line of the profession—practising classroom teachers—often find an appropriate place here (and should surely be found a place as speakers in every conference). Again, the set conversation, as spontaneous as may be within a pre-arranged framework, between interlocuters well versed in a subject but of varied outlook, can have advantages in itself and introduce an acceptable variation on the more familiar one-speaker session. As to the sessions formally set aside for group discussion—the tendency is for more and more time to be allocated for them.

But discussion as such is a condition rather than an objective. It needs to have motive and direction if it is not to run the risk of becoming diffuse, drifting and frustrating. These conditions can be met if it is centred on questions, carefully framed and sequenced, to which the group is asked to search for answers; and on the formulation of consequential questions—for submission, perhaps, at a later plenary meeting. Still more effective, in some circumstances, is the setting of group tasks based on given data. In science and mathematics practical work arises inevitably, in the field and the laboratory, from the nature of the subject. In other spheres both data and task can be at least realistic; the more nearly real they are the better. Open-ended situations such as are here postulated give various types of mind and personality various opportunities to follow their bent.

Three examples may be given. In a conference for recently appointed heads and aspirants to headship four problem situations were presented in dramatised form by recorded closed-circuit television, and the groups asked to formulate comments and solutions. In a conference on the middle school each group was given plans of a prospective school, supposed staff consisting of the members of the group, each hypothetically 'accompanied' by a real colleague whose qualifications, strengths and weaknesses were known—and then were asked such questions as any head of a middle school would be obliged to answer: concerning social and educational organisation, allowances structure, timetable analysis, and so on. In a conference on English in secondary schools groups were asked to frame a hypothetical CSE Mode III syllabus such as might be submitted to a regional board.

For all such work the group chairmen and their briefing are all-important. A conference organiser will need to sense the direction the conference is taking, to detect weaknesses and foresee opportunities. Regular meetings with the group chairmen can provide him with antennae that serve these and other purposes. The development of any course or conference, necessarily built round a framework of fixed times for visiting speakers, can nonetheless preserve some degree of flexibility. Last-minute changes to bring in some unforeseen or contingent benefit are always worth watching for. Given the right variety of accommodation, the ready availability of equipment and the readiness of house staff to fit in—and all these Eversley has—opportunism offers many advantages.

TALKING POINTS



By Question master

Art in two Comprehensive Schools

We publish below with little editorial alteration a set of notes made by one of HM Inspectors in the course of studying the work in art at two comprehensive schools. The questions and observations at the end of the notes were designed to provide a basis for discussion. Our intention is first to illustrate the contrast in aim and method found in two, not generally dissimilar, schools, both of which have large and thriving art departments. We also believe that some indication of what HMI may look for and what form the record of his experience may take will be of interest.

In art, an area of the secondary curriculum where the incidence of external examinations is not generally as strong as it is elsewhere, the contrast between two extremely divergent sets of practice has a special interest. The schools are free to provide as they think fit for the needs of their pupils within the context of their resources in staff and equipment.

All good teaching must reflect strongly held conviction. Teaching is too difficult a task to be performed successfully in a half-hearted, indeterminate manner. Thus the work of the two schools described below has the stamp of successful teaching set upon it.

School A

The art department comprises seven large studios, some of which are partitioned, enabling it to function in ten working spaces when need be. Some of these have special equipment covering ceramics, textile printing and dyeing and three dimensional work in wood, metal, concrete and other materials. The remaining spaces are general studios equipped for pictorial and graphic work and light crafts. The rooms are kept in workmanlike order; in some of them the display is stimulating and provocative. The whole department is deficient in storage for the vast amount of material it uses. Projection facilities, so essential to the methods of working here, have to be improvised. Occasional use is made of the main entrance to the school for the display of work produced by the department, a recent exhibition being particularly impressive.

All the classes in years one to three have a double period of art each week—and working groups are of the order of 20 pupils or less.

The philosophy and objectives of the head of department and the art staff (five full-time and seven part-time) are set out clearly in the brief syllabus, notes on course planning and other relevant papers which act as guide lines. Briefly, these are that art is concerned with the solving of problems drawn from the whole of life and is a process of discovery; that individuals should be able to choose the media best suited to the problem they are investigating; that the main aims are the development of imagery and visual awareness and the growth of critical ability in perception. The notes also point out that age and intellectual development are not wholly relevant to these.

The art staff show courage and audacity in shaking off many of the conventions of organisation and teaching likely to prejudice the achievement of these objectives. The fixed class teacher structure has been dropped. Class lessons are replaced by a terminal programme of themes devised by the staff and developed simultaneously with pupils of all ages. These are introduced by the teachers who provide stimulating source materials and perceptual experiences to set the pupils on the path of discovery. For instance, a group of 80 to 100 pupils of varying ages in years

one to three met in a central space to explore through drawing the theme of 'magnification'. Then they moved freely between four studio areas choosing the materials and processes for carrying out their work, whether in two or three dimensions. In the current year about 50 sixth form pupils are studying art for seven periods a week with a view to A-level; they are encouraged to move freely between the studios. A feeling of self-discipline and purpose seems to have replaced a period in which this subject was regarded as a soft option and pupils attended or absented themselves from the studios as they liked.

Opportunities to work in the studios are offered to others in the sixth form and there is a *Background to Art* course lasting for a term and offered (one double period a week) as part of the general studies programme of the sixth form.

The strength of the system lies in the true spirit of partnership in which teachers and pupils work, the self-discipline it engenders in the boys and girls and the confidence it gives them to master the various media they use. When team teaching is not operating, the working groups in the various studios are still of mixed ages and ability and a first-year pupil may be seen working alongside a sixth-former. During the first and second years of the art course time is also spent in introducing the pupils to the equipment and processes available in the special studios; to ceramics, print-making, three dimensional structures, pictorial work, fabric and pattern design.

In a paper written by the head of the department about the method of working he says:

> Not only does it offer maximum flexibility, in that each pupil is able to explore any media at any time and consequently to follow a personal line of development, but it creates an efficient use of staff. Introductions and demonstrations cover the maximum number of students: tuition thereafter is entirely individual and there is less risk of students being carried along passively by the class lesson.
>
> There is the maximum opportunity for personal discovery and for students to stimulate one another, a more desirable situation, I would suggest than the teacher as the sole source of ideas and techniques.
>
> The teacher is assimilated into the group. Each piece of work is an open-ended experiment with the teacher equally involved, and not the imposition of a pattern or a method.

These and other claims were fully substantiated by events: the next step is to seek the support of other subject specialists by involving them in this team-work. The physicist and the mathematician may have something to offer in the fields of perception. The art department has had to make its own efforts to relate its work to drama, to the study of social conditions outside the school and the production of illustrated and written comment on them.

School B

The art department occupies seven studios on the top floor and has annexed two additional studios on the floor below. There is a full-time technical assistant. Some of the rooms are specially equipped for definite crafts—e.g. those for stained glass, fabric design and printing.

There are four full-time teachers and nine part-time (equivalent of 5.2 full-time); the head of department has been in the school for 15 years.

There is some ability streaming throughout the school though this takes the form of broad-banding in the first three years. Although much emphasis is placed on ability there was some evidence of success by the more retarded pupils in junior forms. Indeed, the younger pupils' work shows confidence and freshness and they appeared relaxed and happy over it. Remarkable work by any standards was beautifully displayed in all the rooms. Most of this work was by the older pupils and very little of it was three-dimensional.

The usual options occur after the first three years. This year about 40 pupils sat for O-level GCE and 53 for CSE, but in the sixth form art groups there are only eight in the lower sixth and three in the upper sixth. Art does not enter into the liberal studies course in the sixth form and, although there are club periods after school from 4–6 p.m., only those taking

art as an examination subject stay, although others are free to come if they wish.

The key to the work of the department is to be found in the fact that the school prepares pupils directly for the Diploma in Art and Design course thus by-passing one or two years on pre-diploma or foundation courses normally covered in colleges of art. The personality and strong beliefs of the head of department are reflected in its aims and achievements. The department concentrates on producing work of high standard at the top of the school. In this it is outstandingly successful. On the whole those who have been prepared for diploma or, in the case of architecture, university or AA courses, gain direct entrance and when there they do exceptionally well. As only 46 pupils in England and Wales were accepted straight from school last year, 3–5 entrants in a year, which is the usual number here, is a remarkable achievement. The GCE work reflects strong training and the examination successes are unusually high. Art is in fact run here as most other subjects are in many schools, in pursuit of competence, expertise and examination successes. To achieve this the department has established a well defined pattern of working but one is left with some questions.

(1) Do the methods employed leave room for originality and problem solving by the pupils.

(2) Do the art staff enjoy freedom to experiment with their own methods?

(3) Is the school justified in making such generous specialist provision for so small a number of sixth formers?

(4) Should not the art department influence greater numbers of senior pupils?

If these questions imply doubts about the work, then two positive observations must be made.

(1) Success in art demands order and discipline sometimes difficult to achieve in schools. This department is competently run, is in spick and span, workmanlike order and the pupils, of all ages, are quiet and absorbed when at work.

(2) At all stages the work is commendable, but it must be borne in mind that from the fourth year onwards all the work is that of pupils who take up art for examination purposes.

Nursery Education

The *Daily Telegraph* in October 1938 reported the opening in an industrial city of a nursery class which is still functioning today. Here is an extract from its report:

'Sleep occupies a prominent part in the curriculum and the children are put to bed for 1¾ hours sleep at 1.30 p.m. Teeth cleaning and general bodily care occupy the first part of the morning and after milk has been served there is simple instruction in the perception of colours and shapes.' Such ran the programme for the day thirty years ago when physical care of the children was of special importance.

Today with improved living and physical conditions the programme is different and varying arrangements are made for the children attending full-time to have a rest after the mid-day meal. In some places all the children rest for at least half-an-hour, in others where it is practicable, only those children who need a rest lie down on stretcher beds whilst the others play quietly. In some nurseries no children rest after the mid-day meal, though facilities remain in case of need, and the children have stories, rhymes and quiet play for relaxation after dinner.

Nursery education in the city referred to above has recently been described in a survey by HM Inspectors which emphasises the continuity and expansion of the LEA's provision through difficult years. The aim of the staff in the modern nursery is to create a cheerful place where children find a variety of equipment and materials to work with and where there are adults ready to talk to them and to take an interest in their activities. These activities will go on outdoors as well as indoors and thus an area, safely fenced but challenging to play in, is of great importance.

In some nurseries where there is more floor space the placing of play materials in different areas has much to commend it for the children move about freely, are encouraged to play more easily together because of the better equipped areas and generally have the advantage of richer and more imaginative play. Where there is a variety of waste materials for constructive and imaginative work, the children become very absorbed and spend long periods concentrating on the problem in hand.

Stories and rhymes, music and observation of growing plants play a part in the life of a nursery. Music corners have been developed in some classes so that children can experiment for themselves and more of this could be encouraged. For language development, the hearing of stories and rhymes and joining in singing games is of great importance to all children, but especially so in the deprived areas, often with a high percentage of immigrant children who need to learn to speak English. Most nurseries have a piano, a record player and a radio set. Book corners are established where children can look at books either alone or with an adult.

Some interesting questions are posed by a survey of modern nursery education. Part-time attendance, for instance, has helped to increase in recent years the number of children who benefit from the nurseries. It is noticeable, however, that this produces much extra wear and tear on equipment and that much more consumable material is used. Fathers and caretakers may help with repairs, but is the capitation allowance adequate? Are regular records kept of the children's individual development? Is there an in-service training scheme offered to the staffs of the nurseries? Is there adequate liaison between the nurseries and the infant schools? Sometimes of course the nursery class is attached to the school and then the transition presents few problems. In other cases children nearing the age of five spend an afternoon at the infant school to which they will later be transferred. Is everything possible done to gain the support and understanding of parents, and are they encouraged to give practical help?

Direction in the Teaching of English

Ed. Denys Thompson

C.U.P. 30s. (paper 15s.)

This is an important and timely book. Its aim, in the words of the editor, is 'to review the changes in the teaching of English in British schools in the past thirty years or so; to survey the present position; and to indicate promising developments.'

The volume begins with a chapter by Mr Thompson outlining the main trends. Contrasting the present with the past, he writes that 'Today . . . teachers of English can see and at least partially pursue their subject as one and indivisible, with clear and important aims'. This development he attributes to three main influences: an increased knowledge of children and how they learn, fresh insights into the nature of language, and shifts in our views on literature.

Then follow ten chapters by individual contributors, on the reasons for teaching English, English in the primary school, English for the average pupil, poetry, prose, reading, writing, the spoken word, drama, language, and English in the sixth form.

Most of the writers are well-known as contributors to *The Use of English*, which Denys Thompson founded and until recently edited. Though they share certain standpoints, they do not follow a 'party line'; and useful contrasts of view illuminate such issues as the implications for teaching of modern theories of linguistics.

The quality of the sections varies from interesting to distinguished. The best contributions effectively combine practical suggestions with a clear conception of

values and aims. Notable in this respect are the chapters on poetry by Raymond O'Malley and drama by Christopher Parry. Michael Marland's excellent section on the average pupil has the advantage that he is able to deal with a complete programme of work; but the other contributors, though writing about specific topics, are careful to relate these to English as a whole.

The limitations of the book are partly inherent in the nature of the exercise. Although aims and principles are enunciated which are valid throughout the ability and age ranges, much of the practice described applies to the average pupil and the secondary phase. The chapter on 'The Primary School' was probably the most difficult to write; it includes some penetrating observations, but lacks unity and exhibits a tendency to attribute expressive qualities and symbolic significance to examples of children's work which are simply disorganised and naive.

A deficiency is that few of the contributors touch on the relation of English to the rest of the curriculum. They insist repeatedly on the centrality of English; but one would like to have seen more discussion of how from that centrality the English teacher can relate his work to other subjects. Further, it would have been valuable to include some discussion of the validity of attempts to integrate English into areas of study.

To that particular debate the volume nevertheless makes an indirect but important contribution in demonstrating very clearly two things. First, that English *IS* a discipline, and one with an organic unity. As Raymond O'Malley says: 'A child's command of his native language is, to an extent that formerly was hardly suspected, the key to his whole development; and the interaction between what is said and what is heard, what is read and what is written, between fact and imagination, between poetry and prose, between *ALL* the components of linguistic growth, is both complex and unceasing.' Secondly, and in consequence, English demands a great deal of those who teach it—not only in skill and tact, but in knowledge (particularly of literature), trained insight, and clear understanding of what they are about. Whatever the approach to curriculum and staff deployment, these factors should be faced.

The book deserves to be read by all who are concerned with English and its place in the curriculum. To have compiled it is not the least of the many contributions Denys Thompson has made to the development of English teaching in schools.

J.D.

The Teaching of Geography at University Level

Council of Europe Education in Europe Series by J. Tricart

Harrap 30s.

In the minds of all but a few diehards the battle for the recognition of geography as a respectable university discipline in Britain has long been won, even though the rumbles and grumbles of dissentient rearguard artillery may still be heard from time to time. It comes therefore as a shock to the British reader to learn that in few countries in the Council of Europe has geography achieved a status commensurate with that which it enjoys in Britain. Coupled with the name of Britain are those of Germany and Turkey! Low status for geography finds its expression in the lack of laboratories and equipment, the subordination of geography in degree courses to the role of a subsidiary subject in combination with others, and inadequacy in the quality and numbers of teaching and ancillary staff. The raising of university standards is seen to rest, at least in part, on better standards of achievement in secondary schools, which in turn depends on a supply of well-trained geographers. The problem is to destroy 'the vicious circle of mediocrity'.

The arguments for raising up geography in the universities of Europe are based not on philosophical or epistemological grounds but on the convictions of the committee of its importance as an evolving discipline and the ever-increasing need of modern society for experts trained in the organisation of space, for which role professional geographers are trained. The purposes and values of modern geography are

unequivocally stated in the general conclusion, and there is a word of disapproval for secessionists who march under pseudo-geographical banners.

To have conveyed so much information and advice and to have arrived at some reasonably valid generalisations in the compass of a hundred pages is no mean achievement, and Professor Tricart, who acts as rapporteur, has done well to have crystallized so much positive thinking from his committee of experts representing fifteen European states. Those who believe in the international brotherhood of geographers should read this little book and reflect. If the ideal of European unity rests in some measure on harmonisation within its many parts then those concerned with geography and education have a great deal of reconciling to do.

J.W.M.

Three Thousand Children

by Rachel Holdsworth

Devon Playgroups Association, 5s.

Questionnaires were sent to one hundred and eleven pre-school play groups, childminders and nursery schools registered in the County of Devon, in June 1969. The groups covered almost 3,000 children, hence the title of the book.

The intention of the survey was to find out how effective the private provision that existed in the county was. The research highlighted some of the problems of running playgroups and small nursery schools.

Miss Holdsworth had, she says, 90 per cent response to her questionnaire. She found that 54 per cent of the play groups started as a result of one person's idea (a fact that might encourage others), and that 41 per cent of them began with no funds at all. The amount of money being paid in rent for the school premises varied between nothing (for 13 per cent of them) to over 30 shillings per week (for 3 per cent). Seventy per cent of the group organisers thought they were successful in what they were doing; 20 per cent did not. Why those who thought they were unsuccessful did so is not revealed in the research.

The biggest problem of running a play group is evidently parents—20 per cent of organisers put them at the top of their list of 'worries' (the same 20 per cent who thought themselves 'unsuccessful'?). Twelve per cent found staff their biggest worry, another 12 per cent premises, and 11 per cent the children. Only eight per cent were worried about money matters.

Over half the groups had waiting lists, two-thirds paid at least one member of the staff and 77 per cent were not open in the school holidays. Half the groups included children referred there by the local authority. There were in fact 65 such children in 38 play groups included in the survey.

As far as professional advice in dealing with such children went many would have liked the professional help of a speech therapist and/or a social worker, and 59 per cent of those running groups thought a playgroup adviser would be useful.

The survey has an introduction by Miss Joan Lestor, MP, who points out that the urban aid programme assists with the problem in deprived areas but that deprived children are not exclusively to be found in such areas.

The booklet, which is well produced, is available from the Devon Pre-School Playgroup Association (Middle Garland, Chulmleigh, North Devon) and costs 5 shillings.

M.C.

The editors would like to apologise for a number of errors that appeared in the last issue. On page four the sentence, 'HM Inspectors carried out surveys during 1967 and 1968 in thirteen areas comprising the pilot scheme', should have read: 'HM Inspectors carried out surveys during 1967 and 1968 in fourteen areas outside the pilot scheme'. On the contributors page, the title *French Without Pilot* should have appeared against R. C. Williams' name, and the last line of Geke Linker's biography should have read 'Mammoth Law'.

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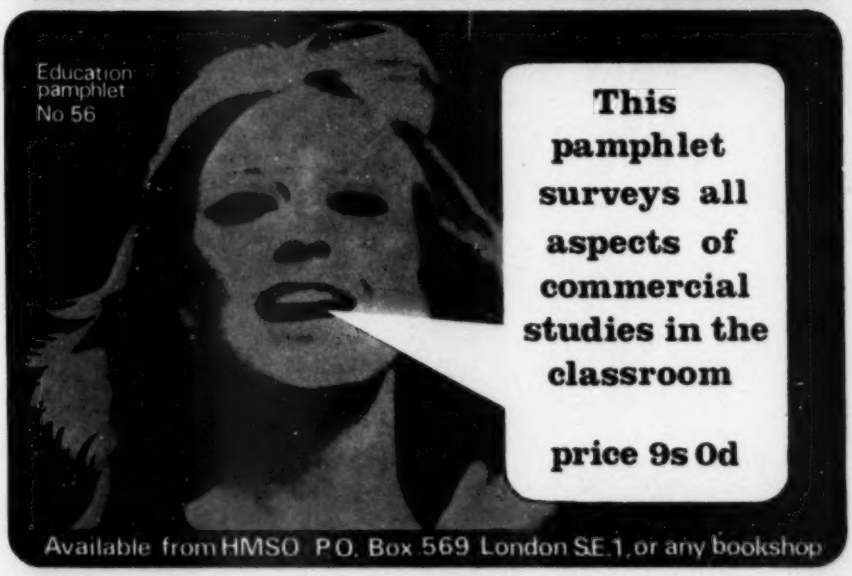

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